New Zealand Companion Animal Trust (NZCAT) Research Study

Furry Whānau Wellbeing: Working with local communities for positive pet welfare outcomes

Final Report 2019

> Rachel Forrest, PhD Maria Pearson, MPhEd Sarah Thomson, BVSc Hafiz Bakri, Dip VN Emma Steiner, Cert VN Natalie Waran, PhD

Te Aho a Māui

Eastern Insisute of Technolgy

Hawke's Bay, New Zealand

501 Gloucester Street, Taradale, Napier 4112

Private Bag 1201, Hawke's Bay Mail Centre, Napier 4142

ISBN: 978-0-9951429-2-3

This research was funded by the New Zealand Companion Animal Trust an initiative of Companion Animals New Zealand (CANZ)

Table of Contents

Introduction	7
Background	7
Research Rationale	9
Methods	10
Participants and Data Collection	10
Data Analyses	14
Results: Objective 1	15
Local Interviews of Patu Members	15
National Survey	17
Demographic Description of the Respondents	17
Narrative Responses	
Dog and Cat Ownership/Guardianship	25
Reasons for Cat and Dog Ownership/Guardianship	26
Dog Ownership/Guardianship Practices	29
Cat Ownership/Guardianship Practices	33
Attitudes Towards Pet Care – Dogs	37
Attitudes Towards Pet Care – Cats	41
Attitudes Towards Euthanasia	45
Attitudes Towards Financial Costs Related to Pet Care	50
Human Health and Wellbeing	52
Roaming Dogs and Cats	54
Results: Objective 2	58
Results: Objective 3	61
Summary	62
References	63
Appendix A: Patu Pets – The Furry Whānau	64
Appendix B: #THATSUS	
Appendix C: Ethics approval	66
Appendix D: Patu – themes taken from interviews (in person and telephone) 2017-2018	67
Appendix E: Thematic analysis of response to Q12. When thinking about pet dogs and cats, wha	•
first few thoughts and/or feelings?	77
Appendix F: Thematic analysis of response to Q13 "How do you feel your upbringing and family	
shaped your attitude towards your companion animals?"	83

Table of Figures

Figure 1. Photos from the collaborative Eastern Institute of Technology (EIT)-Patu Pet Checks	8
Figure 2. The Meke Meter for dogs: An owner-friendly pet wellbeing assessment tool	9
Figure 3. The age representation of the 2019 Pet Survey respondents (n = 2731)	18
Figure 4. Gender representation within each age range of the 2019 Pet Survey respondents (n = 2731).	
Figure 5. Māori and NZ European representation within each age range of the 2019 Pet Survey responde (n = 2731)	
Figure 6. Number of adults in the household: Percentage for each ethnic group of the 2019 Pet Survey respondents (n = 2676).	22
Figure 7. Number of children in the household: Percentage for each ethnic group of the 2019 Pet Survey respondents (n = 2673).	
Figure 8. The 2019 Pet Survey responses to "Why do you own your dog or dogs?" (n = 1514)	27
Figure 9. The 2019 Pet Survey responses to "Why do you own your cat or cats?" (n = 1537)	27
Figure 10. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for the "Dogs should" statements regard pet care	
Figure 11. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for	
the "Cats should" statements regard pet care	
Figure 12. Dog versus cat owner response: Differences in the percentage of positive responses (strongly agree and agree) for each of the pet care statements	,
List of Tables	
Table 1 Qualification level of the 2019 New Zealand Pet Survey respondents	17
Table 2. Regional ¹ representation of the 2019 New Zeland Pet Survey respondents	20
Table 3. Regional ¹ representation of the 2019 New Zeland Pet Survey respondents broken down by gend	
and ethnicity	
Table 4. Income brackets of the 2019 New Zealand Pet Survey respondents	
Table 5. Responses by 2019 New Zealand Pet Survey respondents' indicating when their dog/s are allow inside.	
Table 6. Thematic analysis of comments provided about when their dog or dogs are allowed inside by 20 New Zealand Pet Survey respondent.	
Table 7. Percentage of 2019 New Zealand Pet Survey for each of the answer choices to "Which activities you enjoy doing with your dog/s?"	
Table 8. Positive responses to the question "Which of these apply to your dog/s?" and variables that imponthe likelihood of a positive response.	
Table 9. Positive responses to the question "Which of these apply to your dog/s?" and variables that import the likelihood of a positive response.	
Table 10. Responses by 2019 New Zealand Pet Survey respondents' indicating when their cats/s are allowed inside.	
Table 11. Thematic analysis of comments provided about when their cat or cats are allowed inside by 20 New Zealand Pet Survey respondent.	019
Table 12. Percentage of 2019 New Zealand Pet Survey respondents selecting each of the answer choices "Which activities do you enjoy doing with your cats/s?"	s to
Table 13. Positive responses to the question "Which of these apply to your cat/s?" and variables that impact on the likelihood of a positive response.	
Table 14. Positive responses to the question "Which of these apply to your cat/s?" and variables that impact on the likelihood (odds ration) of a positive response	
impact on the likelihood (odds ration) of a positive response	50

Table 15. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for	
the "Dogs should" statements regarding pet care	37
Table 16. Factors associated with the choice selections made by the 2019 Pet Survey respondents regardi	ng
the care of their dogs	40
Table 17. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for	
the "Cats should" statements regarding pet care	41
Table 18. Factors associated with the choice selections made by the 2019 Pet Survey respondents regardi	ng
the care of their cats	44
Table 19. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for	
the "Dogs and cats should be put down if" statements regarding euthanasia	45
Table 20. Thematic analysis of comments provided about euthanasia by 2019 New Zealand Pet Survey	
respondent	45
Table 21. Factors associated with the choice selections made by the 2019 Pet Survey respondents regardi	ng
the euthanasia of dogs and cats	49
Table 22. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for	
each statement regarding some of the financial aspects related to pet care	50
Table 23. Thematic analysis of comments relating to some of the financial aspects of providing pet care	
made by 2019 New Zealand Pet Survey respondent	51
Table 24. Levels of agreement of respondents to whether owning a pet is beneficial to their mental physic	cal
and social health and wellbeing	52
Table 25. Thematic analysis from explanations provided by 2019 New Zealand Pet Survey respondents	
indicating why they considered roaming dogs and cats a problem	54
Table 26. Thematic analysis of the transcripts of interviews provided by the Patu gym members about the	!
EIT Patu Pet Checks	59
Table 27. Thematic analysis of the transcritps of interviews provided by the EIT Centre of Veterinary	
Nursing students and staff about the EIT Patu Pet Checks	60

Furry Whānau Wellbeing: Working with local communities for positive pet welfare outcomes

Final Report 2019

Introduction

Currently, there is a paucity of studies exploring the attitudes of New Zealanders towards their responsibilities as pet owners and the cultural and regionally-specific factors that may influence these attitudes. If we are to improve the pet management and, in turn, animal welfare, we not only need to understand the reasons why humans behave the way they do towards their animals, we also need to explore methods for enhancing the understanding our communities have of their responsibilities as pet owners so that we can implement effective behaviour change programmes to benefit animal welfare.

The 2018-2019 Furry Whānau Wellbeing project, funded by the Eastern Institute of Technology (EIT) and the New Zealand Companion Animal Trust (NZCAT), is an extension of the EIT Patu Pets project and aimed to: evaluate the effectiveness of embedding pet checks into an existing healthy lifestyle intervention at changing human behaviours towards animal welfare by increasing awareness; trail and evaluate the use of an owner-friendly pet wellbeing assessment tool; and explore national attitudes towards companion animals and pet owners' attitudes to their animal's health and wellbeing along with what factors influence these attitudes. By understanding why humans do the things they do and what drives them to change, we will have some of the tools necessary to be able to make the world a better place for animals.

Background

The NZCAT Furry Whānau Wellbeing Research Study follows on from the EIT Patu Pets project (Steiner et al., 2018; Appendix A). The Patu Pets project is part of a larger collaborative project between EIT staff and students and the local Patu[™] Aotearoa gym (Appendix B, Forrest et al., 2014, 2016). Patu Aotearoa is an initiative dedicated to the holistic health and wellbeing of local communities and runs gyms nationwide that combine group exercise and healthy lifestyle education with Māori language and culture with the majority of Patu gym members identifying as Māori. Patu members and staff create a supportive community which empowers individuals to change their lifestyle for the better (Forrest et al. 2014, 2016). Patu staff use a variety of behaviour change techniques (Savan et al. 2017) such as commitment; visual images, prompts and reminders; creation of their own social norms and branding along with incentives, strong social support and feedback.

The "One Welfare" concept (Colonius & Earley 2013) recognises that human wellbeing, animal welfare, and the environment are all interconnected and aligns well with tikanga Māori. A team from the Eastern Institute of Technology (EIT) have been working alongside Patu[™] Aotearoa (Patu) to promote human and animal welfare among its members. The EIT Patu[™] Pets project implemented pet health checks for cats and dogs alongside the regular Patu member weigh-ins (Figure 1) to explore the link between human and animal health and to develop an owner-friendly pet wellbeing assessment tool (Figure 2) to increase awareness of pet needs. The pet check clinics were run by EIT researchers along with EIT Centre of Veterinary Nursing (CVN) staff and students. This initiative allowed pet care experts to engage with, and educate, a local community that is often referred to as "hard-to-reach", thus providing a unique platform to facilitate positive human behaviour change towards animals. It also provided EIT Veterinary Nursing students with a valuable opportunity to practice their skills and connect with the local community.

The NZCAT Furry Whānau Wellbeing Research Study extended the Patu[™] Pet project by seeking to answer the following research questions:

Can a local community-based human healthy lifestyle initiative be utilised to promote positive welfare in companion animals?

In a New Zealand context, what factors influence peoples' attitudes towards animal welfare issues?

To answer these questions, the following objectives were defined:

- 1. Explore local and national attitudes towards companion animals (cats and dogs) and their understanding of companion animal welfare needs and the common welfare issues likely to be experienced by their pets along with influencing factors.
- 2. Evaluate the effectiveness of embedding preventative health checks for pets into an existing community-based human healthy lifestyle intervention programme such as Patu.
- 3. Trial a pet wellbeing assessment tool (The 'Pet Meke Meter') with Patu pet owners.



Figure 1. Photos from the collaborative Eastern Institute of Technology (EIT)-Patu Pet Checks

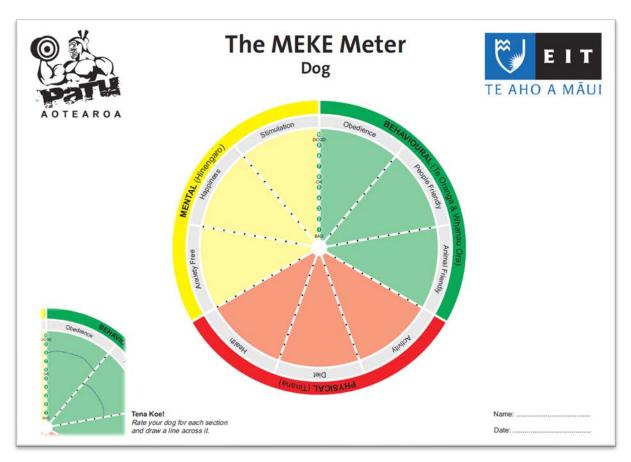


Figure 2. The Meke Meter for dogs: An owner-friendly pet wellbeing assessment tool

Research Rationale

With increasing pet ownership comes an increasing array of animal welfare concerns globally. In NZ, Māori have higher rates of cat and dog ownership than any other ethnicity (NZCAC, 2016). Pet ownership has increased in Māori households since 2011, whereas nationally pet ownership rates decreased (NZCAC, 2016). Given that NZ hosts a diversity of cultures, has a strong conservation/biodiversity focus, and farming as a primary industry, there are likely to be differing values placed on pet animals such as dogs and cats, which will impact on their welfare.

In NZ, there are few studies exploring the attitudes of people towards their pets and their understanding of their pet's needs and therefore, limited information concerning factors that may influence pet welfare nationally. For example, although research has found that female owners in NZ are more likely to sterilise their dog or cat and that there are age differences concerning attitudes towards sterilisation (McKay, Farnworth & Waran, 2009), but very little is known about what people feel is important in relation to their pet's wellbeing. If we are to improve pet welfare by implementing effective human behaviour change programmes the reasons why humans behave the way they do towards their animals need to be understood, and methods for enhancing the understanding our communities have of their pet's needs need to be explored.

Methods

The original Patu Pets Project ethics application (see Appendix C for the approval letter) was updated and extended to include the Furry Whānau Wellbeing research.

Participants and Data Collection

This research utilised face-to-face (either individual or group; whichever was preferred) or telephone interviews and an online survey. Where appropriate, Māori protocol was followed with appropriate introductions (ngā mihi) and customary gift (koha) being given. All interviews were audio-recorded and transcribed by the interviewer. The online survey and all questionnaires and interview questions were developed in consultation with Māori and offered in both te reo Māori or English. The participants and data collection methods for each of the objectives are described below.

Objective 1: Explore local and national attitudes towards companion animals (cats and dogs) and their understanding of companion animal welfare needs and the common welfare issues likely to be experienced by their pets along with influencing factors.

Locally, Patu Pet Check attendees were invited to participate in an interview to gather their thoughts and feelings towards responsible pet ownership, and euthanasia of feral, stray, unwanted and unwell pets. The semi-structured interview questions were as follows:

- What do you think it means to be a responsible dog owner?
- What do you think it means to be a responsible cat owner?
- What types of things make you pay more attention to your pet's needs?
- What are your thoughts about vaccinating pets?
- What's your opinion of desexing dogs and cats?
- What's your opinion of tail docking, ear cropping, and dewclaw removal in dogs?
- What do you know about behaviour modifying collars? What is your opinion on them?
- Do you think about unwanted pets being put down?
- Do you think sick pets should be put down?
- Do you think stray cats and dogs should be put down? What about feral cats? (A stray cat was
 defined as a pet cat that has been abandoned or has 'strayed' from home and becomes lost,
 while a feral cat was defined as a cat which has no or little contact with humans and is fearful
 of people surviving independently)

Nationally, an online survey was developed and offered to New Zealanders via SurveyMonkey©. The survey was developed by EIT researchers Dr Rachel Forrest (Associate Professor, Research) and Maria Pearson in consultation with Natalie Waran (Professor - One Welfare, EIT), EIT CVN staff, Patu staff, Jeal Reiri (Kaitiaki Māori, Lecturer, School of Nursing, EIT) and Mark Farnworth (Associate Professor - Animal Welfare, Nottingham Trent University). The SurveyMonkey© link was distributed through email networks and distributed online via social media (in particular Facebook) and Patu websites with a snowball sampling approach being used to promote the survey and recruit participants (Baltar & Brunet, 2012). The survey remained open for approximately three months (from the 8 January 2019 – 31 March 2019).

The survey questions were as follows:

- Question 1. If you would also be willing to take part in an interview or focus group/discussion, please provide your name and contact details.
- Question 2. Are you: Female, Male, Gender diverse
- Question 3. To which ethnic group do you belong? Tick as many as apply: NZ European, Other European, Māori, Samoan, Cook Island Māori, Tongan, Niuean, Chinese, Indian, Don't know, Other (please specify)
- Question 4. To which age range do you belong? 18-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years, 85 years and over
- Question 5. In which region do you currently live? Northland, Auckland, Bay of Plenty, Waikato, Taranaki, Gisborne, Hawke's Bay, Manawatu-Wanganui, Wellington, Nelson, Marlborough, Tasman, West Coast, Canterbury, Otago, Southland, Other (please specify)
- Question 6. In the last 12 months, what was your total household income? Less than \$14,000, \$14,001-48,000, \$48,001-70,000, \$70,001-100,000, Over \$100,000, Would rather not say
- Question 7. What is your highest completed qualification? National Certificate level 1, National Certificate level 2, National Certificate level 3, National Certificate level 4, Trade certificate, Diploma or Certificate level 5, Advanced trade certificate, Diploma or Certificate level 6, Teachers Certificate or Diploma, Nursing Diploma, Bachelor Degree, Bachelor (Hons), Postgraduate Certificate/Diploma, Masters Degree, PhD, Other (please specify)
- Question 8. Including yourself, how many adults (over 18 years of age) live at your usual address? 0, 1, 2, 3, Other (please specify)
- Question 9. How many children under 18 years of age live at your usual address? 0, 1, 2, 3, 4, 5, Other (please specify)
- Question 10. Were you born in New Zealand? Yes, No
- Question 11. Where were you brought up? Tick as many as apply: In a town or city, On a farm or rurally, On a lifestyle block, Other (please specify)
- Question 12. When thinking about pet dogs and cats, what are your first few thoughts and/or feelings?
- Question 13. How do you feel your upbringing and family values have shaped your attitude towards your companion animals (dogs/cats)?
- Question 14. Where do you live now? In a town or city, On a farm or rurally, On a lifestyle block, Other (please specify)
- Question 15. Do you own a dog? Yes, No (skip to question 26)
- Question 16. How many dogs do you own? 1, 2, 3, 4, Other (please specify)
- Question 17. Why do you own your dog/s? Tick all that apply: Breeding purposes, They keep me company, They make me happy, For my child/children, They keep each other company, Utility reasons (farm work, pig/deer hunting), Protection/guarding, They are my pets, They are family, Therapy (support animal), Sport (racing, hunting for sport, competition, show dogs), Service dog (seizure dog, guide dog), Other (please specify)
- Question 18. Is your dog allowed inside the house? Yes, No
- Question 19. If yes, when are they allowed inside? Tick all that apply: Whenever they choose (free access) during the day, Whenever they choose (free access) at night, My dog is always confined indoors during the day, My dog is always confined indoors at night, Only when someone is at home, Other (please specify)
- Question 20. What do you allow your dog/s to do inside? Tick all that apply: Roam freely, Sit or sleep on the furniture, Sleep on or in your bed, Remain in a designated area e.g. crate, pet bed, kennel, Eat food from the bench/table, Sit on the bench/table, Other (please specify)
- Question 21. When travelling in your vehicle, your dog/s are (tick all that apply): I don't have a vehicle, Allowed to sit on the driver's knee, Allowed to sit on the passenger's knee, Unrestrained and free to go anywhere, Unrestrained but must remain in the back seat, Restrained using an animal harness,

- Put in a crate or animal carrier, Put in the boot, Unrestrained on the deck of a ute/truck, Restrained on the deck of a ute/truck, Other (please specify)
- Question 22. When your dog/s are outside, they are (tick all that apply): Chained up, Free-roaming and can leave the property, In a dog run/pen, In a kennel, Free-roaming on a well-fenced property, Other (please specify)
- Question 23. Which activities do you enjoy doing with your dog/s? Tick all that apply: Recreational activities (walking, running, playing), Working (farm work, service dog, sled dogs, guard dogs), Pig/deer hunting, Training my dog, Grooming, Competitions (shows, agility, obedience), Other (please specify)
- Question 24. Which of these apply to your dog/s? Tick all that apply: My dog vaccinations are up to date, My dog is desexed, My dog is flea treated according to product instructions, My dog is wormed according to product instructions, My dog has a docked (short) tail, I use behaviour modifying collars on my dog for training, My dog's nails are clipped when needed, My dog's teeth are cleaned by the vet when needed, My dog's teeth are cleaned by me when needed, My dog is groomed (brushed or clipped) regularly, My dog is groomed (brushed or clipped) occasionally, My dog has caused me financial stress (e.g. vet bills), My dog is a pedigree, Please provide further explanation if required.
- Question 25. What do you feed your dog/s? Tick all that apply: My dog is fed dog roll, My dog is fed dog biscuits from the supermarket, My dog is fed specialised dog food from a pet shop or vet clinic, My dog is fed raw meat, My dog is fed wet food, My dog is fed table scraps/human food, My dog is fed food that I have cooked for them, My dog is fed treats, Other (please specify)
- Question 26. Do you own a cat? Yes, No
- Question 27. How many cats do you own? 1, 2, 3, 4, Other (please specify)
- Question 28. Why do you own your cat/s? Tick as many as apply: They keep me company, They keep each other company, For my child/children, They make me happy, They are my pets, They are family, Breeding purposes, Utility reasons (catching pests), Protection/guarding, Therapy (support animal), Show cat (sport, competition), Other (please specify)
- Question 29. Is your cat allowed inside the house? Yes, No
- Question 30. If yes, when are they allowed inside? Tick all that apply. Whenever they choose (free access) during the day, Whenever they choose (free access) at night, My cat is always confined indoors during the day, My cat is always confined indoors at night, Only when someone is at home, Other (please specify)
- Question 31. What do you allow your cat/s to do inside? Tick all that apply: Sit or sleep on the furniture, Sleep on or in your bed, Eat food from the bench/table, Sit on the bench/table, Remain in a designated area (room, crate), Other (please specify)
- Question 32. Which activities do you enjoy doing with your cat/s? Tick all that apply: Going for a walk, Relaxing (sleeping/cuddling, watching television), Playing
- Eating/sharing food, Grooming, Competing, Other (please specify)
- Question 33. Which of these apply to your cat/s? Tick all that apply: My cat vaccinations are up to date, My cat is desexed, My cat is flea treated according to product instructions, My cat is wormed according to product instructions, My cat's nails are clipped when needed, My cat's teeth are cleaned by the vet when needed, My cat's teeth are cleaned by me when needed, My cat is groomed (brushed or clipped) regularly, My cat is groomed (brushed or clipped) occasionally, My cat has caused me financial stress (e.g. vet bills), My cat is a pedigree, Please provide further explanation if required.
- Question 34. What do you feed your cat/s? Tick all that apply: My cat is fed cat biscuits from the supermarket, My cat is fed specialised cat food from a pet shop or vet clinic, My cat is fed raw meat, My cat is fed wet food, My cat is fed table scraps/human food, My cat is fed food that I have cooked for them, My cat is fed treats, Other (please specify)

- Question 35. Health/care section. Please choose the option (Strongly agree, Agree, Neutral, Disagree, Strongly disagree) that most closely describes how you feel about the following statements. Dogs should: have regular vet checks; have up to date vaccinations; have up to date flea treatments; have up to date worming treatment; be desexed; be micro-chipped; be bred for certain looks; not have their appearance modified e.g. tail docking, ear cropping, branding, tattooing; have a specialised diet from a pet shop or vet clinic; not be trained using behaviour modifying collars (e.g. shock, spray, check chain); have ribs, hips, and a spine that are not visible but are easily felt; have access to adequate housing; Please provide further explanation if required.
- Question 36. Health/care section. Please choose the option (Strongly agree, Agree, Neutral, Disagree, Strongly disagree) that most closely describes how you feel about the following statements. Cats should: have regular vet checks; have up to date vaccinations; have up to date flea treatment; have up to date worming treatment; be desexed; be micro-chipped; be bred for certain looks; have their appearance modified (e.g. branding, tattooing); have a specialised diet from a pet shop or vet clinic; have ribs, hips, and a spine that are not visible but are easily felt; have access to adequate housing; Please provide further explanation if required.
- Question 37. Euthanasia section. Please choose the option (Strongly agree, Agree, Neutral, Disagree, Strongly disagree) that most closely describes how you feel about the following statements. Dogs and cats should be put down if: they are strays (they are homeless pets); they are no longer wanted by their owner; they are sick; the owner cannot afford treatment; they are feral (they have become wild); Please provide further explanation if required.
- Question 38. Financial section. Please choose the option (Strongly agree, Agree, Neutral, Disagree, Strongly disagree) that most closely describes how you feel about the following statements: Expense is a factor in the level of vet/animal health care that dogs and/or cats receive; If my income was higher, I would spend more money on my dog and/or cat's health and well being; Pet insurance is important; People should only own a pet if they can afford to keep it; Owning a pet has caused me financial stress (vet bills); Please provide further explanation if required.
- Question 39. Human wellbeing section. Please choose the option (Strongly agree, Agree, Neutral, Disagree, Strongly disagree) that most closely describes how you feel about the following statements. Owning a pet is beneficial to: mental health and wellbeing; physical health and wellbeing; social health and wellbeing; Please provide further explanation if required.
- Question 40. Do you think that roaming pet dogs and cats are a problem? Yes, No, Never thought about it Question 41. If yes, please explain why.
- Question 42. If you would like to, please share any family memories or stories you may have, or have had handed down to you, about dogs and cats.

Respondents were not required to answer all the questions and were provided with the option to skip questions as they desired. Where a respondent chooses "Other please specify" if possible the information was recoded into the appropriate category. For example, those who did not select European but identified as British were recoded as European. Various categories were collapsed as necessary for statistical analyses to maintain adequate sample sizes.

Objective 2: Evaluate the effectiveness of embedding preventative health checks for pets into an existing community-based human healthy lifestyle intervention programme such as Patu

All those attending a Patu Pet Check were invited to participate in an interview. The interview questions were:

- What motivated you to bring your pet along to the health check?
- What benefits did you gain from attending the pet health check?
- Did you act on any of the advice given at the pet health check?
- Do you think the Patu pet health checks should keep going?
- Before the health checks, how did you make sure your pet was healthy?

EIT CVN staff and students were interviewed to gain their perspective as well. The questions asked included:

- What are your impressions of the pet checks/ How did you find the pet checks?
- How valuable are the pet checks for those (ie Patu whānau and pets, CVN students and staff) attending them
- Can you think of anything that we could do to improve the pet checks?

Objective 3: Trial a pet wellbeing assessment tool (The 'Pet Meke Meter') with $Patu^{TM}$ pet owners.

Local Patu dog owners and CVN staff and students were invited to trial the Dog Meke Meter and then participate in an interview. The semi-structured interview questions included:

- How did you find the pet wellbeing assessment tool to use?
 - How did you find it to understand?
 - How did you find it to fill out?
- What do you think about the presentation of the pet wellbeing?
 - What did you think about the colours, pictures etc
- Did you find using the pet wellbeing useful?
 - If so, how?
 - If not, why not?
- How could we improve the tool?

Data Analyses

The qualitative data were analysed independently by at least two researchers for emergent themes and categories using a general inductive approach (Thomas, 2006). Misspelt words were corrected in quotes for presentation in this report. The quantitative data in the form of forced responses to survey questions were analysed using descriptive statistics. Where appropriate inferential statistics such as correlations (Pearson's and Spearman's Chi-square), z-tests, binary logistic regressions and general linear mixed-effects models were employed to explore the associations between the demographic data and the participant responses to the questions asked. The statistical approach for a particular question will be described as the results are presented. All statistical analyses were carried out using IBM SPSS Statistics (version 25) software.

Results: Objective 1

Explore local and national attitudes towards companion animals (cats and dogs) and their understanding of companion animal welfare needs and the common welfare issues likely to be experienced by their pets along with influencing factors.

Local Interviews of Patu Members

Locally, Patu members (7 females, 1 male) were interviewed to gather their thoughts and feelings towards responsible pet ownership, and euthanasia of feral, stray, unwanted and unwell pets. The full thematic analysis is in Appendix D.

The overarching theme that emerged about pet (dog and cat) ownership was that they were part of the family; a dependent, for example, when one interviewee talked about her dog, "...we loved her, yeah, she's like the baby, she is the baby" (F1). Accordingly, the sub-themes centred on love and parental responsibility for the safety and holistic care of the animal to maintain their health and wellbeing. These subthemes are captured in the comments, "They're part of your family and yeah and if they're sore or hurt or sick, you take them to the vet. Pretty much just like a family member you know, your kids" (F5), "You know you've got to love your animal. Just nurture it really and yeah, just love them and yeah, keep them safe..." (F6) and make sure that "...they're healthy and not neglected health-wise and you know, with love and that" (F4).

There were differing views about the responsible ownership of dogs and cats. For dogs, responsibility for their behaviour was expressed with one interviewee stating that a responsible dog owner should make sure "that the dog's behaviour towards people and other animals is acceptable, especially in their environment. And the owner themselves, like they will take responsibility if anything happens" (F7). Behaviour modification collars, however, were not viewed favourably with the following quotes being representative, "...there are other ways to train a dog without using yeah, I don't know. I wouldn't like to be zapped. So I wouldn't want my dogs to be zapped either" (F2) and "...the zapping ones, I think that's quite cruel" (F4). The general perception, however, was that cats' behaviours were harder to control, "Cats are different to dogs. They do what they want" (F2) and therefore "it's a lot harder to be a responsible cat owner" (F2). It was for cat ownership the only mention of microchipping pets was made, "we have ours microchipped but that's probably as responsible as we get. And they come and go as they please and they do as they please" (F2). The underlying sentiment regarding responsible pet ownership was the need "to actually care for them [pets] properly" (F3) and "if you can't look after them like they deserve to be, then you shouldn't have them" (F1).

Not surprisingly, food and shelter were identified as essential for the proper care of all pets. With respect to dogs, exercise and socialisation were also acknowledged as important, the following quotes being representative, "You care for your dog's wellbeing; their shelter, food, exercise, and also having them around people and other animals, yeah socialisation...Treat them like family" (F2) and "I think if you don't have time for them, you know, it's probably better to find another home" (F4). When asked specifically about vaccination, this was considered important, especially for young animals, "I do vaccinate them for the first, I think, two years. Yeah, and then I don't think I have after that..." (F2). Vaccination was not a priority as the animals got older, "I do vaccinate them for the first, I think two years. Yeah, and then I don't think I have after that..." (F2), "I'm pro for it. Because my dog is home like she always had her vaccinations but because she's home a lot, now she's a bit older I don't take her up that much. I don't keep her up to date" (F4). The expense of vaccination was identified as a factor, "I don't do mine, to be honest. ... It's just money for me. I just think it's an unnecessary thing for me" (F5). All of those interviewed were pro desexing, especially for cats. There was a

strong sentiment of don't breed animals if you can't look after them as there "...is a huge amount of pets that are not, that are being neglected because of over breeding" (F7)

Appearance modification (tail docking and ear cropping) was met with mixed responses which ranged from these practices being viewed as cruel, disgusting and unnecessary, to docked tails looking better in some breeds, "I reckon it's all goods if their tails get chopped off for bulldogs only though. And Rottweilers... It just doesn't suit them" (F3) and acceptable if done professionally, "... if they [tails and ears] were docked professionally, I wouldn't have anything against it but backyard ones, I just really hope some owners are taking good care of the wounds and stuff" (F7). Docked tails were acknowledged as better for hunting by one interviewee, "...because he's a hunting dog they didn't want to have the tail." (F5). Ear cropping was not viewed favourably by most of the interviewees and provoked a strong response in some, for example, "I'm against that eh. That's cruelty, that's cruelty to animals yeah. I know there's a few people that do do it, yeah. You know, I tell them too eh. Would you like me to crop your ears like that? You know, yeah, disgusting..."(F5). The following quotes sum up the thoughts expressed by most of the interviewees "Totally against it in any breed... they use their tails to communicate with other dogs and people and you can't read them if they haven't got a tail. And their ears are just cosmetic to me and I don't think it's right" (F2) and "...unless it's hurting them medically some way or their health I think they should just be the way they're born."(F1)

Euthanasia was thought of as a humane option for pets dogs and cats that were sick and couldn't be treated or if they would otherwise have to live in pain which is evidenced in this quote, "Depends, if they can't be helped, then maybe it's the most humane thing to do. You don't want them to live in pain. But not if they can be helped to be better. Yeah, I don't know. I don't think they should be put down unless they absolutely can't be helped" (F1). Putting a pet down was viewed as a last option and that is was the owners responsibility to have enough money to pay for any medical care the pet required, "I feel like if you can fix them, then they should be. But I feel like it's the owner's responsibility to have enough money to, yeah, that should be the last option" (F2). Euthanasia was not considered an acceptable option for unwanted cats and dogs with a strong theme of rehoming emerging, for example, "I reckon they should go like SPCA to like try to get new homes, yeah... Yeah but definitely not put down cos it's not their fault" (F3) and "You should try and rehome them...Yeah definitely. You don't put them down if you don't want them, that's mean". Some went further highlighting the need for better understanding of what pets require and the need for harsh penalties if an pets needs aren't met, "I think if they could be rehomed, that would be better. I think that would be really sad. I do realise that there are a lot of people out there that get pets without considering just how, you know, how much work and commitment there is to it. Which is quite sad but, yeah" (F4) and "Yeah, I think the laws around people who abuse animals and neglect them should be a lot stronger than they are... Yeah, too lenient" (F2).

When asked about whether stray dogs and cats should be put down the following comments were made, "I think they should be neutered and try to be re-homed" (F2) and "I don't think they should be put down, it's not their fault. I reckon that they should just be re-homed " (F1). However, some said "But I think it's just something that you can't, you know, you can't make a home for 200 cats or you know. So it's just something that I guess maybe has to happen, unfortunately" (F4) and other thought differently about cats and dogs "But dogs are more useful than cats so cats can get put down" (F3). Varying attitudes were also apparent when it came to whether or not feral cats should be euthanised. The responses ranged from, "Yeah, put them down, for sure" (F3) through to "Yeah, feral cats, yeah. I think they should be given a chance though. Just like everybody else, should be given a chance" (M1). Others qualified there answers, for example, "I think if they're not doing harm in a way if they are wild I don't see it as being too bad but then I'm not too sure on quite, you know, how that affects the environment and stuff" (F4) and "I'd rather a cat kill a bird than 1080 or things like that. I mean, there's worse things out there than a cat killing a bird cos that's their natural thing to do" (F6).

National Survey

Demographic Description of the Respondents

Nationally, 2744 people responded to the online survey. Many of the respondents skipped various questions. Of the 2744, 2731 choose to disclose their gender with 92.3 % being female (n = 2521), 7.4% being male (n = 203) and 0.3% identifying as gender diverse (n = 7). A total of 2693 respondent choose to share with which ethnic groups they identified. Those that responded as New Zealander, Kiwi, Human, Alien or Jedi were recorded as unknown (missing data). The majority of the respondents identified as NZ European (n = 2277, 83.4%) or Other European (n = 278, 10.1%), with 8.3% (n = 229) of respondents identifying as Māori, 1.1% (n = 31) as Pacific Islander (Samoan, Cook Island Māori, Tongan and or Niuean), 1.0% (n = 26) as Chinese, 0.7% (n = 20) as Indian and 1.7% (n = 48) as an ethnicity other than those listed. Of those that identified as either Māori or NZ European, 98% (n = 222) and 95% (n = 1980) were born in NZ. Within ethnicity, there was a significantly smaller percentage of NZ European males (6.9%) compared to the percentage of non-NZ European males (9.7%, z test, P<0.05). Of those that identified as Māori, 9.2% (n = 21) were male.

There was good representation of all age ranges from 18-64 years of age, with the expected decline in respondent numbers for the older age ranges (Figure 3). Even though the number of male respondents was low (n = 203), they were represented in each age range (Figure 4). Māori were represented in all age ranges except for 85 years and over (Figure 5). Age range was weakly correlated with household income range (n = 2273, rho = 0.078, P < 0.001) and qualification level (n = 2521, rho = 0.097, P < 0.001) and negatively correlated with the number of adults (n = 2708, rho = -0.371, P < 0.001) and children (n = 2705, rho = -0.135, P < 0.001) in the household.

Within Māori and NZ European, there were similar percentages of respondents for each NZ Qualification Authority (NZQA) levels (Table 1, z-tests). Forty per cent of Māori and 41% of NZ European respondents had a higher-level qualification (level 7 or above) while 65% of those that did not identify with either of these ethnic groups had a qualification the equivalent of level 7 or above. In the NZ 2013 census, 20% of people held a higher qualification. In addition to age range, qualification level was positively correlated with household income (n = 2136, rho = 0.279, P < 0.001) had a weak negative correlation with the number of adults in the household (n = 2514, r = -0.066, P = 0.001).

Table 1 Qualification level of the 2019 New Zealand Pet Survey respondents

NZQA level	Māori		N	Z European		Other		Total
	n	percentage	n	percentage	n	percentage	n	percentage
1	18	8.3% a	135	6.9% a	8	2.6% b	161	6.5%
2	10	4.6% a	96	4.9% a	5	1.6% b	111	4.5%
3	25	11.5% a	242	12.3% a	18	5.8% _b	285	11.4%
4	25	11.5% _a	203	10.3% _a	11	3.5% _b	239	9.6%
5	29	13.4% a	227	11.6% _a	24	7.7% _b	280	11.2%
6	24	11.1% a	254	12.9% a	45	14.4% a	323	13.0%
7	45	20.7% a	424	21.6% a	90	28.8% _b	559	22.4%
8	27	12.4% a, b	230	11.7% _b	50	16.0% a	307	12.3%
9	12	5.5% a	119	6.1% a	43	13.7% _b	174	7.0%
PhD	2	0.9% a	33	1.7% a	19	6.1% _b	54	2.2%
Total	217	100.0%	1963	100.0%	313	100.0%	2493	100.0%

a,b Each subscript letter denotes a subset of Ethnicity categories whose column percentages do not differ significantly from each other at the 0.05 level.

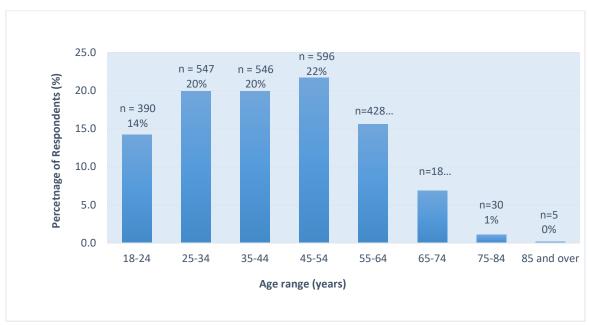


Figure 3. The age representation of the 2019 Pet Survey respondents (n = 2731).

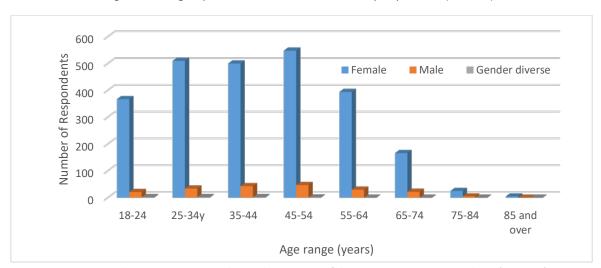


Figure 4. Gender representation within each age range of the 2019 Pet Survey respondents (n = 2731).

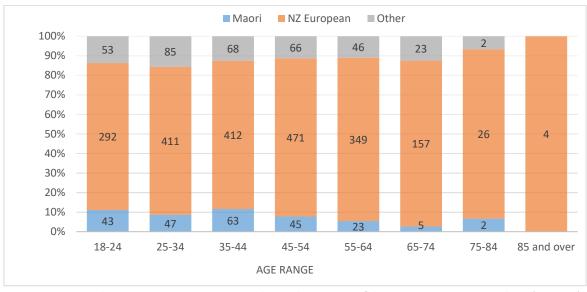


Figure 5. Māori and NZ European representation within each age range of the 2019 Pet Survey respondents (n = 2731).

New Zealand is divided into 16 regions (takiwā) for local government purposes. The number of respondents for each of these regions is given in Table 2 along with the percentage of total respondents and the regional population. A total of 2669 respondent disclose their place of residence, gender and ethnicity. Table 3 shows that Māori representation was greatest from the East Coast of the North Island and poorest in the South Is. Male representation was generally poor and many takiwā had no or very few Māori male respondents (Table 3). Of the respondents, 25% (n = 600) indicated that they had lived rurally as a child (had a rural upbringing). At the time of the survey, 76% of the respondents lived in a town or city. Of those respondents that had a rural upbringing, 68% currently dwell in a town or city. No differences in the percentage of respondents that had a rural upbringing or that were town/city-dwelling due to ethnicity were observed.

Household information including household income, number of adults and number of children were also collected. Of the respondents that disclosed their household income (n = 2251), there was a relatively even distribution across the income brackets above 14K and there were similar percentages of Māori and NZ European in each income bracket (Table 4, z-tests, P< 0.05). There was a weak correlation between household income and the number of adults in a household (rho = 0.096, P < 0.001) and the number of children in the household (rho = 0.151, P < 0.001). There were similar percentages of respondents for each income bracket with the exception of 'less than 14 K' which had fewer respondents within both ethnic groups (Table 4, z-tests, P < 0.05). A total of 2715 respondents divulged information about the number of adults and children they lived with. The majority of the survey respondents (54%, n = 1479) lived in households with one other adult, while 15% (n = 406) lived with two other adults and 19% (n = 526) of the respondents lived alone. Figure 6 shows an ethnic difference between the percentages of respondents living with one or two other adults (confirmed by a z-test, P < 0.05).

Interestingly, 70 respondents (3%) selected zero as their response to "Including yourself, how many adults (over 18 years of age) live at your usual address?". While zero should not have been an option and this was an error in the survey design it does provide insight into the robustness of the data as this indicates either a lack of ability to understand the question or a careless response. There was a negative correlation between age range and the number of adults in a household (rho = -0.371, P < 0.001) and the number of children in the household (rho = -0.135, P < 0.001). The majority of the survey respondents lived in households without children, with those that identified as Māori being more likely to live with children than non-Māori (tauiwi) (Figure 7).

Table 2. Regional¹ representation of the 2019 New Zeland Pet Survey respondents

Region	Takiwā	Governing body	Population	Number of Responses	% of Responses	% of Population
Northland	Te Tai Tokerau	Northland Regional Council	179100	90	3.3%	0.05%
Auckland	Tāmaki-makau-rau	Auckland Council	1695900	376	13.7%	0.02%
Bay of Plenty	Te Moana-a-Toi	Bay of Plenty Regional Council	305700	115	4.2%	0.04%
Waikato	Waikato	Waikato Regional Council	468800	178	6.5%	0.04%
Taranaki	Taranaki	Taranaki Regional Council	119600	66	2.4%	0.06%
Gisborne	Te Tai Rāwhiti	Gisborne District Council	49100	33	1.2%	0.07%
Hawke's Bay	Te Matau-a-Māui	Hawke's Bay Regional Council	165900	422	15.4%	0.25%
Manawatu-Wanganui	Manawatu-Whanganui	Horizons Regional Council	234500	371	13.5%	0.16%
Wellington	Te Whanga-nui-a-Tara	Greater Wellington Regional Council	521500	232	8.5%	0.04%
Nelson	Whakatū	Nelson City Council	51900	62	2.3%	0.12%
Marlborough	Te Tauihu-o-te-waka	Marlborough District Council	46600	60	2.2%	0.13%
Tasman	Te Tai-o-Aorere	Tasman District Council	52100	29	1.1%	0.06%
West Coast	Te Tai Poutini	West Coast Regional Council	32600	24	0.9%	0.07%
Canterbury	Waitaha	Canterbury Regional Council	624000	421	15.3%	0.07%
Otago	Ōtākou	Otago Regional Council	229200	140	5.1%	0.06%
Southland	Murihiku	Southland Regional Council	99100	87	3.2%	0.09%
Other (please specify)				7	1.3%	
Missing (skipped)				31	1.1%	
			Answered	2744	100%	

¹ New Zealand is divided into 16 regions (takiwā) for local government purposes.

²Subnational Population Estimates: At 30 June 2018 (provisional). Statistics New Zealand. 23 October 2018. Retrieved 23 October 2018. For urban areas, Subnational population estimates (UA, AU), by age and sex, at 30 June 1996, 2001, 2006-18 (2017 boundaries). Statistics New Zealand. 23 October 2018. Retrieved 23 October 2018.

Table 3. Regional¹ representation of the 2019 New Zealand Pet Survey respondents broken down by gender and ethnicity

Region	Ethnicity	Female	Male	Gender diverse	Total	%Total
Northland	Māori	7	0		7	8.0%
Te Tai Tokerau	NZ European	69	7		76	86.4%
	Other	4	1		5	5.7%
A	Total	80	8	0	88	F 20/
Auckland	Māori	19	1	0	20	5.3% 73.3%
Tāmaki-makau-rau	NZ European Other	257 70	16 10	1	274 80	73.3% 21.4%
	Total	346	27	1	374	21.4%
Bay of Plenty	Māori	14	1	1	16	14.2%
вау от Pienty Te Moana-a-Toi	NZ European	80	5	0	85	75.2%
Te Moana-a-Toi	Other	80 12	0	0	85 12	10.6%
	Total	106	6	1	113	10.0%
Waikato	Māori	18	1	1	113	10.9%
vvalkato	NZ European	126	8		134	76.6%
	Other	20	2		22	12.6%
	Total	164	11		175	12.070
Taranaki	Māori	6	0		6	9.5%
Taranaki	NZ European	49	1		50	79.4%
	Other	6	1		7	11.1%
	Total	61	2		63	11.1/0
Gisborne	Māori	11	5		16	48.5%
Te Tai Rāwhiti	NZ European	11	3		14	42.4%
i Cira Navella	Other	2	1		3	9.1%
	Total	24	9		33	5.170
Hawke's Bay	Māori	53	5	0	58	14.0%
памке s вау Te Matau-a-Māui	NZ European	271	42	2	315	75.9%
. C. Mataa a Maai	Other	37	5	0	42	10.1%
	Total	361	52	2	415	10.1/0
Manawatu-Wanganui	Māori	26	2	1	29	7.9%
Manawatu-Whanganui	NZ European	258	20	1	279	76.0%
	Other	49	9	1	59	16.1%
	Total	333	31	3	367	10.170
Wellington	Māori	16	1	,	17	7.5%
Te Whanga-nui-a-Tara	NZ European	161	11		172	75.8%
	Other	36	2		38	16.7%
	Total	213	14		227	10.770
Nelson	Māori	1	0		1	1.6%
Whakatū	NZ European	50	1		51	82.3%
vviiakata	Other	10	0		10	16.1%
	Total	61	1		62	10.170
Marlborough	Māori	3	0		3	5.2%
Te Tauihu-o-te-waka	NZ European	52	1		53	91.4%
re raama o te waka	Other	2	0		2	3.4%
	Total	57	1		58	3.470
Tasman	Māori	1	0		1	3.6%
Te Tai-o-Aorere	NZ European	24	1		25	89.3%
	Other	2	0		2	7.1%
	Total	27	1		28	,/0
West Coast	Māori	1	0		1	4.8%
Te Tai Poutini	NZ European	21	1		22	95.7%
	Total	22	1		23	33.770
Canterbury	Māori	18	2		20	4.8%
Waitaha	NZ European	346	14		360	86.7%
a.tana	Other	340	1		35	8.4%
	Total	398	17		415	0.470
Otago	Māori	5	2		7	5.2%
Ōtākou	NZ European	112	6		118	87.4%
	•	10	0		10	7.4%
Otakou	OTDEr		U		135	7.770
Otakou	Other Total		Q			
	Total	127	8			7.0%
Southland	<i>Total</i> Māori	127 6	0		6	7.0% 84.9%
	<i>Total</i> Māori NZ European	127 6 66	0 7		6 73	84.9%
Southland	<i>Total</i> Māori NZ European Other	127 6 66 7	0 7 0		6 73 7	
Southland Murihiku	Total Māori NZ European Other Total	127 6 66 7 79	0 7		6 73 7 86	84.9% 8.1%
Southland	Total Māori NZ European Other Total NZ European	127 6 66 7 79	0 7 0		6 73 7 86 2	84.9% 8.1% 28.6%
Southland Murihiku	Total Māori NZ European Other Total NZ European Other	127 6 66 7 79 2 5	0 7 0		6 73 7 86 2 5	84.9% 8.1%
Southland Murihiku overseas	Total Māori NZ European Other Total NZ European Other Total	127 6 66 7 79 2 5	0 7 0 7	2	6 73 7 86 2 5 7	84.9% 8.1% 28.6% 71.4%
Southland Murihiku	Total Māori NZ European Other Total NZ European Other Total Māori	127 6 66 7 79 2 5 7	0 7 0 7	2	6 73 7 86 2 5 7	84.9% 8.1% 28.6% 71.4% 8.5%
Southland Murihiku overseas	Total Māori NZ European Other Total NZ European Other Total	127 6 66 7 79 2 5	0 7 0 7	2 4 1	6 73 7 86 2 5 7	84.9% 8.1% 28.6% 71.4%

¹ New Zealand is divided into 16 regions (takiwā) for local government purposes

Table 4. Income brackets of the 2019 New Zealand Pet Survey respondents.

Household Income		Māori NZ E		NZ European		Other		Total
	n	percentage	n	percentage	n	percentage	n	percentage
<\$14K	17	8.6% _{a, b}	100	5.6% _b	27	9.8% a	144	6.4%
\$14-48K	44	22.2% a	385	21.7% a	53	19.3% a	482	21.4%
\$48-70K	42	21.2% _{a, b}	383	21.5% _b	43	15.6% a	468	20.8%
\$70-100K	46	23.2% _a	424	23.8% a	59	21.5% a	529	23.5%
>\$100K	49	24.7% a	486	27.3% a	93	33.8% b	628	27.9%
Total	198	100.0%	1778	100.0%	275	100.0%	2251	100.0%

a,b Each subscript letter denotes a subset of Ethnicity categories whose column percentages do not differ significantly from each other at the 0.05 level.

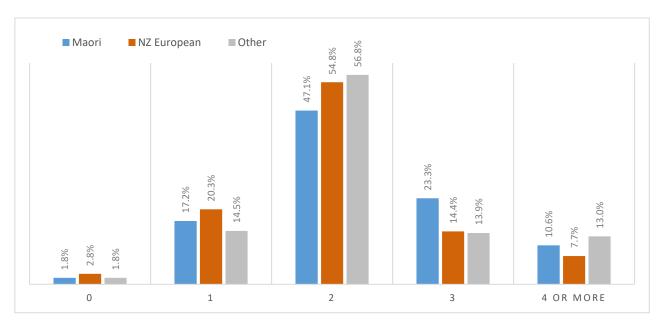


Figure 6. Number of adults in the household: Percentage for each ethnic group of the 2019 Pet Survey respondents (n = 2676).

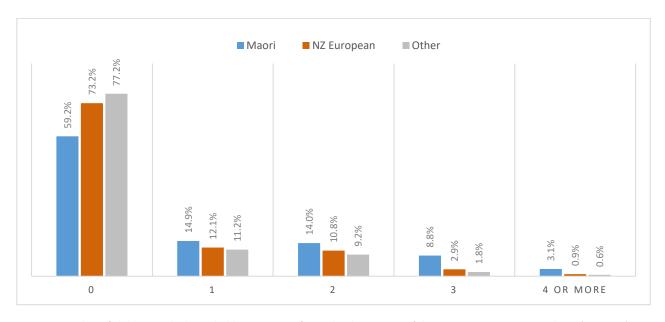


Figure 7. Number of children in the household: Percentage for each ethnic group of the 2019 Pet Survey respondents (n = 2673).

Narrative Responses

Extensive qualitative data was generated by the following questions and invite to share:

- "When thinking about pet dogs and cats, what are your first thought and/or feelings?" 2331 responses.
- "How do you feel your upbringing and family values have shaped your attitude towards your companion animals?" 2273 responses
- "If you would like to, please share any family memories or stories you may have, or have had handed down to you, about dogs and cats" 563 responses

The time and budget constraints of this project did not allow for in-depth analyses of the data.

"When thinking about pet dogs and cats, what are your first thought and/or feelings?"

An initial exploratory analysis identifying the major emergent themes is in Appendix E. Several overarching themes emerged from the responses. The strongest themes were around Family, Love, Positive emotions, Companionship, Beneficial, Desirable, Pets are not a right, Animal welfare, Owner responsibility, Costs, Cats versus dogs, and a Threat to other animals and wildlife. Some of the more prominent subthemes were as follows:

- Family: Part of; Necessary; Like children
- Love: In love; Unconditional love; As a companion; As family; Deserve it
- Positive emotions: Cute and adorable; Affection and warmth; Comfort, happiness and joy; Fun and entertaining
- Companionship: Good company, Never lonely/always present; Best friend, Protective, Loyal,
 Preferable to humans
- Beneficial: Improve owner wellbeing; Educators, Beneficial for children
- Desirable: Wished for; But not able to have; But not settled/stable
- Pets are not a right: A privilege, Blessed/grateful, Valuable/enriching
- Animal welfare: A responsibility, Good animal welfare is deserved, Not enough resources,
 Mistreatment and neglect, Big commitment, Animal's perspective
- Owner responsibility: Considerations (capable of taking care of an animal); Deserve a safe environment; Irresponsible owners; Education; Rescue/rehoming; Dependence of humans
- Costs: Money; Time; Need care/work; Messy/smelly; Worth it
- Cat versus dogs: Prefer cats; Prefer dogs; Dogs larger commitment; Cats easier to look after; Dogs are working animals/cats are part of a household
- Threat to other animals wildlife: Cats a major problem

"How do you feel your upbringing and family values have shaped your attitude towards your companion animals?"

An initial exploratory analysis identifying the major emergent themes is in Appendix F. The strongest themes around upbringing were: Always had pets, Valued family member, No pets growing up, Farm upbringing, Hunting background, Animal focused, Upbringing had little or no influence, Clearly influenced by their upbringing, Parents, Animal welfare, Animal care, Benefits to humans, Cats versus dogs. Some of the more prominent subthemes were as follows:

- Always had pets: Growing up; Taught to respect animals; Provide life lessons; A 'normal' part of life;
 For an only child; Lost without them
- Valued family member: Loved/important; Spoilt
- No pets growing up: Greater appreciation; Desired; Taught to respect animals; Weary of animals;
 Animals for food or income only

- Farm upbringing: Animal husbandry; Animals as valued workers; Purpose not pets; Cats versus dogs;
 Taught love and respect; Livestock for food; Mistreatment
- Hunting background: Animal an important food source; Compassion and empathy
- Animal focused: Obsession; Animal advocate
- Upbringing had no or little influence: No pets as a child; Limited exposure to animals as a child;
 Developed own attitudes and values as an adult
- Clearly influenced by their upbringing: Strong influence; Dysfunctional family; Religious upbringing;
 Values; Insight; Experiential learning; Influenced career choice; Passing it on future generations;
 Traumatic experience
- Parents: Positive attitudes; Negative attitudes
- Animal welfare: Respect; Not possessions; Dependence, empathy, responsibility; Training is important; Mistreatment
- Animal care: Humans versus animals; Need clear boundaries; Treat with respect; Treat as equals; Pets are a privilege; Lifetime commitment/responsibility; Education
- Benefits to humans: Make owner a better person; Good for mental health; Good for physical health;
 Good for teaching children; Preferable to other humans
- Cats versus dogs: Fear of dogs; Cats a threat to the environment

"If you would like to, please share any family memories or stories you may have, or have had handed down to you, about dogs and cats"

A large number of stories and memories were shared while some said they had too many to share and they couldn't possibly choose one. Many acknowledge animals and or pets have always been an integral part of life and how animals had provided enrichment in the respondents' lives. A lot of stories centred around the rescuing and taming animals and the reciprocal benefits of this. There were some moving stories about pets saving lives, protecting their owners, finding their way home when lost, overcoming adversity and about the clever antics of some pets. However there were also sad stories about the bereavement of beloved pets and unhappy memories of pets being sick, hurt, mistreated or killed. Some chose to share their general disapproval of how some animals are treated. Many highlighted the need for owner responsibility. A full discourse analysis would provide many insights about the respondents and their relationship with their companion animals.

Dog and Cat Ownership/Guardianship

A total of 2358 respondents answered the pet ownership questions. Of these, 37.5% (n = 885) respondents owned both types of pets, 28% (n = 652) were cat only and 26 % (n = 609) were dog only. Nine percent (n = 212) of the respondents did not own a cat or dog at the time of completing the survey.

Forward stepwise binary regressions were used to explore if gender (female, male), ethnicity (Māori, NZ European, Other), age (18-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years), income range (<\$14,000, \$14,001-48,000, \$48,001-70,000, \$70,001-100,000, >\$100,000, Would rather not say), qualification level (1-10), being brought up rurally (yes, no), currently living in a town (yes, no), the number of children and or the number of adults present in the household impacted on dog or cat ownership.

Of the respondents, 1842 could be used in the binary regression analysis for dog ownership (yes, no). Age range (odds ratio 1.128), household income (odds ratio 1.243), qualification level (odds ratio 0.917), town-living (odds ratio 0.442) and number of children (odds ratio 1.267) were retained in the models (P< 0.001). Increasing age range, household income and the number of children increased the likelihood (odds) of owning a dog while increasing qualification level and living in a town/city decreased the likelihood of owning a dog. In a similar analysis for cat ownership (yes, no), 1800 respondents could be used and only gender (odds ratio 0.587, P = 0.003, with males being less likely to own a cat) and the number of children (odds ratio 1.276, P < 0.001) were retained in the model. As the number of children increased there was an increased likelihood of owning a cat.

A general linear model was used to explore if gender (female, male, gender diverse), ethnicity (Māori, NZ European, Other), age (18-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years, 85 years and over), income range (<\$14,000, \$14,001-48,000, \$48,001-70,000, \$70,001-100,000, >\$100,000, Would rather not say), qualification level (1-10), being brought up rurally (yes, no), currently living in a town (yes, no), the number of children and or the number of adults present in the household impacted on the number of dogs or cats owned. Not surprisingly, place of residence was associated with the number of dogs and or cats owned (P< 0.001 and P = 0.029, respectively), with those living in a town or city owning fewer pets. No other factor significantly impacted on the number of dogs owned. For cats, household income level was also associated with the number owned (P = 0.003) along with age range (P = 0.024). Bonferroni corrected pairwise comparisons revealed that those with an income under 14K owned more cats with those in this income bracket owning an average of three cats compared to the two cat average for each of the other income brackets. Those respondents in the 18-24 years, 75-84 years and 85 plus years of age owned an average of one cat compared to the two cat average for each of the other age ranges.

Reasons for Cat and Dog Ownership/Guardianship

A total of 1514 respondents choose to share their reasons why they owned their dog or dogs. A list of predetermined options was provided along with the option to select other and leave a comment. Where "other" responses aligned with one of the categories that was already specified, the answer was re-coded. Figure 8 shows that the main reasons for owning a dog or dogs are: they are my family (91 %, n = 1372), they make me happy (88 %, n = 1333), they keep me company (80 %, n = 1207), and they are my pets (73 %, n = 1108). From the comments provided for this question (n = 86) several themes emerged. Themes regarding other reasons for owning a dog included providing a home for foster, rescue, inherited and or retired dogs (n = 24) and exercise companion and or motivator (n = 19) with comments such as "She needed a home and came to be with me" and "Having a dog gives me a reason to go for walks, motivation", respectively. A theme of child or children substitute also emerged with comments like "I don't plan on having children at all", "They are my family. Don't like kids!" and "They are our fur babies - we don't have children".

A cross tabulation of 'pet' versus 'family' was performed. Of the 1514 respondents, 3 % (n = 43) did not consider their dog part of the family or a pet, 67 % (n = 1009) considered them both, 6 % (n = 99) considered them pets but not family, while 24 % (n = 363) consider them family but not pets.

A forward stepwise binary regression was used to explore if gender (female, male, gender diverse), ethnicity (Māori, NZ European, Other), age (18-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years, 85 years and over), income range <\$14,000, \$14,001-48,000, \$48,001-70,000, \$70,001-100,000, \$100,000, Would rather not say), qualification level (1-10), being brought up rurally (yes, no), currently living in a town (yes, no), the number of children and or the number of adults present in the household impacted on whether or not whether or not a dog was considered family or not. Gender (odds ratio 0.304, P< 0.001), age range (odds ratio 0.747, P< 0.001), qualification level (odds ratio 0.835, P< 0.001) and rural upbringing (odds ratio 0.622, P = 0.034) were retained in the model. Males and gender diverse were less likely to consider dogs part of the family when compared to females (77% of males, 75% of gender diverse and 92% of females). As the age range and qualification level increased there was a decreased likelihood of considering pet dog or dogs part of the family. Those with a rural upbringing were also less likely to consider their dog or dogs part of the family when compared to those who did not have a rural upbringing (87% versus 92%).

A total of 1537 respondents choose to share the reasons why they owned their cat or cats. As with dogs, a list of predetermined options was provided along with the option to select other and leave a comment. Where "other" responses aligned with one of the categories already specified the answer was re-coded. Figure 9 shows that the main reasons for owning a cat or cats are: they are my family (87 %, n = 1340), they make me happy (84 %, n = 1292), they keep me company (81 %, n = 1252), and they are my pets (69 %, n = 1054). These are very similar to the results that were obtained for dogs. In the comments for this question (n = 110), several themes emerged. Themes regarding other reasons to own a cat included providing a home for foster, rescue, stray or inherited cat (n = 81) and that they are easier and or cheaper than dogs (n = 4) with comments such as "To provide a forever home for a cat in need" and "Easier and cheaper than a dog even though I love dogs", respectively being representative. The theme that a cat cannot be owned also emerged with comments such as "Really, who owns cats, they own us - Don't they?" and "You never really "own" an animal [cat]....they are companions and as such any animal that feels safe and loved will stay with you...". Other themes that emerged from general comments included love for cats and by cats (n = 12) and that cats bring joy (n = 4). "Adore them!", "She needs to be loved just as much as I do", "My cat shows me love and affection", and "for pure joy" reflecting these themes. The quote "A house is not a home without a cat" seemed to capture the sentiment of many.

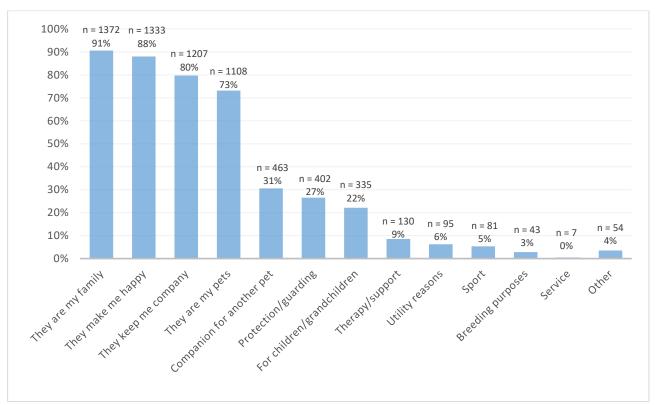


Figure 8. The 2019 Pet Survey responses to "Why do you own your dog or dogs?" (n = 1514).

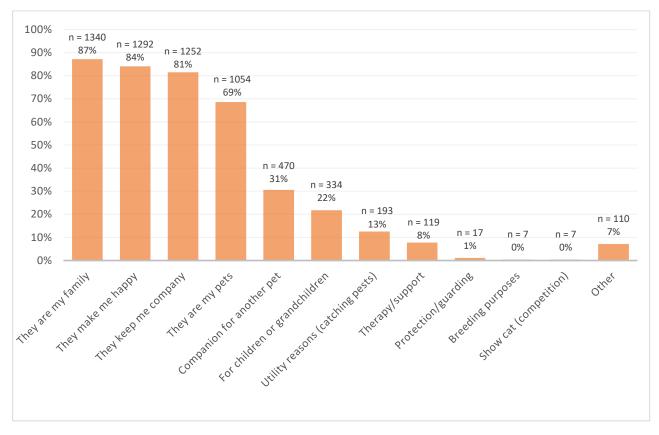


Figure 9. The 2019 Pet Survey responses to "Why do you own your cat or cats?" (n = 1537).

In a similar fashion to that undertaken for dogs, a cross-tabulation of 'pet' versus 'family' was undertaken. Of the 1537 respondents, 4% (n = 67) did not consider their cat or cats part of the family or a pet, 60% (n = 924) considered them both, 9 % (n = 30) considered them pets but not family, while 27% (n = 461) consider them family but not pets. Similarly, a forward stepwise binary regression was used to explore if gender (female, male, gender diverse), ethnicity (Māori, NZ European, Other), age (18-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years, 85 years and over), income range <\$14,000, \$14,001-48,000, 48,001-70,000, 70,001-100,000, 100,000, Would rather not say), qualification level (1-10), being brought up rurally (yes, no), currently living in a town (yes, no), the number of children and or the number of adults present in the household impacted on whether or not a cat was considered family or not. Gender (odds ratio 0.340, P= 0.003), ethnicity (odds ratio 0.619, P = 0.026), age range (odds ratio 0.789, P< 0.001), qualification level (odds ratio 0.835, P = 0.007) and currently living in a town (odds ratio 1.956, P = 0.034) were retained in the model. Males were less likely to consider cats part of the family when compared to females and gender diverse (75%, 88% and 100%, respectively). When compared the NZ Europeans and other ethnicities, Māori are less likely to consider a cat family (88% and 86% versus 83%) As age range and qualification level increased there was a decreased likelihood of considering their cat or cats as part of the family. Only 71% of those respondents over 75 years of age considered pets family compared with 93% of those between 18-24 years of age. Of the respondents with a PhD, 77 % considered their cat part of their family whereas 91 % of those with levels 1-3 considered cats part of their family. It should be noted that there was only a weak correlation between age range and qualification level (rho = 0.097, P < 0.001).

Dog Ownership/Guardianship Practices

A total of 1512 respondents disclosed whether or not they were allowed inside the house with 96% (n = 1449) selecting yes. Table 5 showed when respondents' dog or dogs were allowed inside. More than one choice could be selected.

Table 5. Responses by 2019 New Zealand Pet Survey respondents' indicating when their dog/s are allowed inside.

Answer choice	n	Percentage
Whenever they choose during the day	962	66.4%
Whenever they choose at night	478	33.0%
My dog is always confined indoors during the day	99	6.8%
My dog is always confined indoors at night	573	39.5%
Only when someone is at home	389	26.8%
Other	167	11.5%

Some of the respondents chose "other" and to leave a comment to clarify their choice of responses. Themes that emerged from these comments (Table 6) included that dogs were often allowed free access inside during the day when someone was at home, but the dogs were either outside, crated inside, or had restricted access (eg laundry or garage) when not supervised. The latter was also true for dogs at night. Another emergent theme was that dogs were often kept inside during inclement weather, illness or fireworks. Two respondents differentiated between farm/working dogs and pets with farm dogs being kept exclusively outside while the pets dogs were indoor dogs.

The majority of those that responded (88%, n = 1278) indicated that when their dog or dogs were inside they could roam freely with the majority of respondents also indicating that their dog or dogs were free to use the family furniture and sleep on or in their owners' bed (65%, n = 945 and 56%, n = 813, respectively). Only 19% (n = 278) of respondents restricted their dog or dogs to designated areas while inside. A minority of respondents allowed their dog or dogs to eat food from and sit on kitchen surfaces (1.2%, n = 18 on 0.8%, n = 12, respectively). Again, many of the respondents chose "other" and to leave a comment to clarify their choice of responses. The major themes were that most dogs had their own furniture (eg couches and bed) and they required an invite or permission to use human furniture which is evidenced by the following representative quote "They have beds for sleeping, but they are allowed on our bed if we tell them they can get up for fuss and attention", and that smaller dogs enjoyed more freedoms inside than larger dogs for example "Big dog not allowed on furniture/bed" and "The big dogs are only allowed up when we call them up".

When outside, most respondents (89%, n = 1335 from a total of 1499) indicated that their dogs or dogs are free to roam on a well-fenced property. Of these, 12% (n = 157) also selected kennel, run and or chained up and where a comment was provided indicated that their dogs were only free to roam the property when someone was home, for example, "Run with kennel when alone, free-roaming in fenced boundary when we're home". Five per cent (n = 75) of respondents indicated that their dogs or dogs were allowed to roam free and could leave the property at least some of the time. Of these, 27 commented that their dog or dogs "don't leave the property" with some stating it was because the dogs "know they are not allowed" and "will get growled at if they wander off the property". Several of the respondents indicated they were from a rural property and that although the dog or dogs could leave they didn't, for example, "we live very rural, [my dog] doesn't leave property" and "They [my dogs] roam free on our farm, but do not leave the property".

Table 6. Thematic analysis of comments provided about when their dog or dogs are allowed inside by 2019 New Zealand Pet Survey respondent.

Category	Theme	Subtheme	Representative quote
During the day	When someone is home	Free access	"Whenever they choose during the day
			when someone is at home"
		When invited	"Allowed inside when invited and
			supervised."
		Restricted freedom	"He is not allowed to roam around inside
			free range. He tells me if he needs
			something but otherwise is happy to stay
			in his bed near me"
		Constant companion	"My dog goes to work (and everywhere)
			with me."
	While no one is home	Free access	"They have the run of the house"
		Restricted access	"Has access to laundry and outside when
			I'm at work and the whole house when
			I'm home"
		Confined in the	"Confined indoors during day while I'm at
		house (or part of)	work"
		Crated inside	"They are crated inside if we are away"
		Confined in garage	"In the garage when no one is home"
		Restricted access	"Has access to laundry and outside when
			I'm at work and the whole house when
			I'm home"
		No inside access	"Always in kennel outside if nobody at
			home"
	During bad weather or		"Kept indoors in inclement weather or
	health		when she has not been well"
	Never inside	Farm/working dog	"Farm dogs are outside"
		Pets	"Dog outside all day in fenced property"
During the night	When someone is home	Free access	"Free access night and day"
		Confined	"locked inside with us at night"
		Sleep in a designated	"My dog sleeps on my bed and the old
		area	dog has her own bed"
		Crated	"At night one sleeps with my child and
			the other 2 are put in their cage for the
			night"
	During weather extremes		"Mostly an outdoor dog but joins us
			inside for evenings, and allowed inside
			when the weather is either too hot or to
			cold. Sleeps inside sometimes during
			winter months"
	Never inside	Outside	"Sleep outside"
		Designated area	"Secure in outside kennel for night time"
		outside	

A total of 1511 people responded to the question about how their dog or dogs travel in vehicles. Of these, 2 % (n = 29) let their dog sit on the driver's knee, and 12 % (n = 179) allowed their dog to sit on the passenger's knee. Only 7 % (n = 105) allowed the dog to roam free throughout the vehicle while 44% (n = 663) allowed their dogs to roam free in the backseat area only and 19% (n = 280) put their dog in the boot/hatchback area. A minority of respondents (2%, n = 22) indicated they let their dog travel unrestrained on the deck of a ute or truck. Approximately half, 51% (n = 767) of the respondents indicated that they restrained or crated their dogs in or on the vehicle.

Table 7 indicates the type of activities pet owners enjoy doing most with their dog or dogs. Not surprisingly almost all dog owners enjoy doing recreation activities with their companion animal.

Table 7. Percentage of 2019 New Zealand Pet Survey for each of the answer choices to "Which activities do you enjoy doing with your dog/s?"

Answer choice	n	Percentage
Recreational activities (walking, swimming, running, playing)	1472	98%
Working (farm work, service dog, sled dogs, guard dogs)	115	8%
Hunting	43	3%
Training	602	40%
Grooming	563	38%
Competitions (shows, agility, obedience, mushing etc)	104	7%

Table 8 summarises several aspects of dog care. The majority of respondents (>80 %) indicated that their dog or dogs were vaccinated, wormed, flea treated, desexed and had their nail clipped. Grooming and teeth cleaning had lower positive response rates but many of the respondents left comments indicating that their dog was shorthaired and did not require grooming and or that their dog's diet naturally cleaned their teeth, for example, "Doesn't need grooming - short-haired - nails kept down by lots of walking and teeth by using Dentustix and bones" and "Short coated dogs don't require regular grooming". There was a strong theme that any "Financial stress is worth it!", "He is old and required surgery. It was expensive but worth it." Several respondents indicated that they had pet insurance.

Forward stepwise binary regressions were used to explore if gender (female, male, gender diverse), ethnicity (Māori, NZ European, Other), age (18-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years, 85 years and over), income range <\$14,000, \$14,001-48,000, \$48,001-70,000, \$70,001-100,000, \$100,000, Would rather not say), qualification level (1-10), being brought up rurally (yes, no), currently living in a town (yes, no), the number of children and or the number of adults present in the household was associated with respondent's choice selections (Table 8). Gender was found to impact on worming with females being more likely to worm their dog according to the product instructions compared to males and gender diverse (92% of females, 86% of males and 75% of gender diverse). Ethnicity was retained in the models for desexing and professional teeth cleaning with less Māori (94% and 36%, respectively) selecting these than NZ European (97% and 45%, respectively) and other ethnicities (98% and 44%, respectively). As age range increased there was a decreased likelihood of the dog being flea treated according to product instructions and the owner cleaning their dog's teeth. As household income increased the likelihood of the owner cleaning their dog's teeth decreased and the likelihood of professional teeth cleaning increased. Not surprisingly as household income increased the likelihood of financial stress decreased.

Interestingly, as the qualification level increased the likelihood of professional teeth cleaning decreased. Having a rural upbringing decreased the likelihood of a dog being desexed, whereas if the owner currently lived in a town or city then there was an increased likelihood of the dog being desexed and regularly groomed. As the number of adults in the house increased there was a decreased likelihood of the dog being desexed. Likewise, with an increasing number of children in the household, there was a decreasing likelihood that the dog or dogs were desexed. With an increasing number of children, there was also a decreases likelihood that the pet dog or dogs were groomed regularly and had their teeth professionally cleaned.

Forward stepwise binary regressions were used to explore what variables were associated with an owners choice of diet for their dog or dogs (Table 9). A dog was more likely to be feed treats if the owner was female (59% versus 48% and 50% for male and gender diverse, respectively) or living a town or city (61% versus 54% for those not living in a town or city). The likelihood of being fed treats decreased as age and number of children increased. Household income, qualification level and the number of children were associated with whether or not a dog was fed a specialised diet, supermarket biscuits or dog roll. Increasing household income was associated with a specialised diet, while the likelihood of supermarket foods (biscuits, dog roll, and wet

food) and home-cooked food increased as household income decreased. An increasing qualification level was associated with an increased likelihood of a dog being fed biscuits (specialised and supermarket) and a decrease in the likelihood of a dog being fed dog roll. An increasing number of children was associated with a decreased likelihood of specialised food or home-cooked food and an increased in the likelihood of biscuits or dog roll from the supermarket along with an increased likelihood of being fed table scraps. The latter was also associated with an increasing number of adults in the household. Dogs were also more likely to be fed dog roll if their owners were Māori (42% versus 27% for NZ European and 17% Other), with increasing age and did not live in town (33% versus 25%). Dogs were more likely to be fed raw meat if their owners had a rural upbringing (41% versus 34%) and did not live in town (43% versus 32%). As the number of adults increased the likelihood of being feed raw meat decreased.

Table 8. Positive responses to the question "Which of these apply to your dog/s?" and variables that impact on the likelihood of a positive response.

oositive response.			
Answer Choices	n	Percentage	Associates variables and odds ratio (P value)
My dog is wormed according to product instructions	1373	91.6%	Gender: male/female 0.451 (0.011)
My dog vaccinations are up to date	1358	90.6%	Number of children 0.814 (0.026)
My dog is flea treated according to product instructions	1315	87.7%	Age range 0.878 (0.042); Town-living 1.752 (0.003)
My dog is desexed	1301	86.8%	Ethnicity 1.919 (0.001); Rural upbringing 0.683 (0.040); Town-living 1.807 (0.001); Number of adults 0.783 (0.010); Number of children 0.844 (0.038)
My dog's nails are clipped when needed	1210	80.7%	no variables were retained
My dog is groomed (brushed or clipped) regularly	748	49.9%	Town-living 1.310 (0.041); Number of children 0.785 (<0.001)
My dog's teeth are cleaned by the vet when needed	634	42.3%	Ethnicity 1.349 (0.031); Household income 1.170 (0.0403); Qualification level 0.934 (0.013); Number of children 0.839 (0.009)
My dog's teeth are cleaned by me when needed	474	31.6%	Age range 0.893 (0.011); Household income 0.822 (0.016)
My dog has caused me financial stress (e.g. vet bills)	341	22.8%	Household income 0.858 (0.017)

Table 9. Positive responses to the question "Which of these apply to your dog/s?" and variables that impact on the likelihood of a positive response.

What do you feed your dog/s?	n	Percentage	Associated variables
My dog is fed treats	880	59%	Gender: male/female 0.548 (0.011); Age range 0.917 (0.044); Town living 1.341 (0.028); Number of children 0.767 (<0.001)
My dog is fed specialised dog food	862	58%	Household income 1.162 (0.005); Qualification level 1.089 (0.002); Number of children 0.739 (<0.001)
My dog is fed dog biscuits from the supermarket	583	39%	Household income 0.876 (0.014); Qualification level 1.904 (<0.001); Number of children 1.387 (<0.001)
My dog is fed raw meat	533	36%	Rural upbringing 1.439 (0.009); Town-living 0.714 (0.14); Number of adults 0.860 (0.037)
My dog is fed table scraps/human food	503	34%	Number of adults 1.269 (0.001); Number of Children 1.136 (0.046)
My dog is fed dog roll	414	28%	Ethnicity 0.564 (<0.001); Age range 1.118 (0.022); Household income 0.863 (0.014); Qualification level 0.890 (<0.001); Town-living 0.577 (<0.001); Number of children 1.188 (0.016)
My dog is fed wet (eg canned) food	299	20%	Household income 0.856 (0.011)
My dog is fed food that I have cooked for them	275	18%	Household income 0.847 (0.010); Number of children 0.789 (<0.001)

Cat Ownership/Guardianship Practices

A total of 1534 respondents disclosed whether or not they were allowed their pet cat or cats inside the house with 99 % (n = 1524) selecting yes. Table 10 showed when respondents' cats or cats were allowed inside. More than one choice could be selected. Some of the respondents chose "other" and to leave a comment (n = 110) to clarify their choice of responses. Themes that emerged from these comments are presented in Table 11.

Table 10. Responses by 2019 New Zealand Pet Survey respondents' indicating when their cats/s are allowed inside.

Answer choice	n	Percentage
Whenever they choose (free access) during the day	1307	86%
Whenever they choose (free access) at night	850	55%
My cat is always confined indoors during the day	92	6%
My cat is always confined indoors at night	418	27%
Only when someone is at home	87	6%

A total of 1527 respondents answers the questions about what their cat or cats were allowed to do while inside. Nearly all indicated that when their cat or cats were inside they were free to use the family furniture (97 %, n = 1488) and sleep on or in their owner's bed (91 %, n = 1388). Only 3% (n = 42) of respondents restricted their cat or cats to designated areas while inside. A minority of respondents allowed their cat or cats to eat food from and sit on kitchen surfaces (12 %, n = 186 on 22 %, n = 334, respectively). Again, many of the respondents chose "other" and to leave a comment to clarify their choice of responses. The major themes were that most cats could "Go wherever they please except on surfaces where food is prepared or eaten" but that it is was "Difficult to tell/train as they [cats] tend to do as they please, when they please - haha" and "Technically they are not allowed on the bench....but cats really don't give a damn about rules". The presence of a dog was typically indicated as a reason as to why a respondents cat was allowed on the bench/table, for example, "The cat eats from the bench because of the dogs as they will eat the cat food" and "They have a designated spot on the bench so the dog can't eat their food". Some cats had designated rooms at night, for example "Has his own bed in own room", "They are not allowed in the bedrooms at night. They have an outdoor cattery to give them safe outdoor space away from other cats and wildlife" and "Husband allergic so bed banned".

Table 12 indicates the type of activities pet owners enjoy doing most with their cat or cats. Not surprisingly almost all cat owners (92 %) enjoyed recreational activities with their companion animal. Many commented that they enjoyed "Just chilling out together", "Talking to them and give 'em cuddles and stroke them", "Watching them be hilarious..." and "spending time together around the garden". Though at the other end of the spectrum was "She's not a cuddly cat but always near where I am so just good company" and "We tend to lead separate lives.... we see her when she is hungry".

Table 11. Thematic analysis of comments provided about when their cat or cats are allowed inside by 2019 New Zealand Pet Survey respondent.

Theme	Subtheme	Representative quote		
Human intervention	No cat flap	"I rent and don't have a cat door"		
needed for inside access		"Allowed inside during day if someone is there or a window is open"		
	Outside if no one	"When someone is around to open the door"		
	home	"Current house doesn't have a cat door so not inside unless we are		
		home"		
		"No cat flap so out during the day"		
	Indoors if no one	"Indoors when I'm not home but free access when I am home during the		
	home	day"		
		"We don't have a cat door. When we are home (nights and weekends)		
		she can go in/out as she wishes. When we are not home she is inside."		
	Either in or out	"Don't have cat door, free to come & go on-demand or stay inside if they		
	when no one home	choose during the day when someone is there to let them in/out"		
		"If we are out (work etc) the house gets locked up wherever they are		
		(inside or out) they stay"		
		"As long as someone is home she comes in and out. Due to no cat door at		
		my rental, wherever she is when we leave home is where she stays until		
		someone comes back"		
Free inside access	Cat door	"Cat door/do as they please"		
		"They have free access 24/7 with cat doors"		
Restricted inside access	When no one is	"They have limited access when no one is home where they have food,		
	home	water and creature comforts"		
		"Restricted to the conservatory generally when no one is home and at		
		night time unless he is injured or sick"		
		"Free access to garage all the time"		
Restricted outside access	At night	"Inside at night but let them out when they ask"		
		"Free access during the day and locked in at night/when it gets dark"		
		"When we go to bed who ever is inside stays inside but it's their choice"		
	During extreme	"In the winter she is kept in at night but during the summer she has free		
	weather, illness or	access to inside/outside"		
	fireworks	"During a storm or if they are sick" "Fireworks- inside"		
Alwaysinsida	Cofoty			
Always inside	Safety	"In the interest of keeping my cats safe, they are kept as indoor cats. They have a catio and we take them outside at least once a day for		
		supervised outside time"		
		"She lives in house because it is not safe for a cat going outside in my		
		hometown"		
	Protect wildlife	"Cats kept indoors at all times to protect birdlife"		
	Have cat	"My girls are indoor cats and have access to a cat conservatory"		
	conservatory or	"They have a catio"		
	catio	They have a case		
Won't come inside	30.00	"She won't come inside"		
come more		"If it is summer and hot sometimes the cat won't come in overnight"		
		in this summer and not sometimes the cut won't come in overnight		

Table 12. Percentage of 2019 New Zealand Pet Survey respondents selecting each of the answer choices to "Which activities do you enjoy doing with your cats/s?"

Answer choice	n	Percentage
Going for a walk	156	10%
Relaxing (sleeping/cuddling, watching television)	1419	92%
Playing	1177	77%
Eating, sharing food	210	14%
Grooming	733	48%
Competing	11	1%

Table 13 summarises several aspects of cat care. The majority of respondents (>90 %) indicated that their cat or cats were dogs wormed, flea treated, and desexed. AS with dogs, several of the respondents said they only carried out flea and worm treatment as required, for example, "Flead and wormed when required, not as a matter of course" and "Short-haired & indoors so don't get fleas or worms". More than three-quarters (77%) confirmed that their cat or cats vaccinations were up to date. The was a perception of kitten vaccinations being important but adult ones being less of a priority with some of the respondents saying "we do not do annual vacs but everyone has been vaccinated twice as kittens" and "My cats have all had initial vaccines". Less than half of the respondents selected yes for the remaining statement concerning teeth cleaning, nail clipping, and grooming with some of the respondents saying they had not been necessary or that their cat or cats were not compliant, for example, "Won't let me clip nails & I refuse to sedate them for this so carpet suffers!", "She keeps her claws short on trees outside and doesn't like being brushed do only gets it occasionally!" and "Haven't required nail or teeth treatment". Nineteen per cent of respondents acknowledged that their cat had caused them financial stress with one saying, "I would go without so that they don't have to". One respondent commented, "My cats may be the cause of me going grey with the amount of mischief they get into".

Forward stepwise binary regressions were used to explore if gender (female, male, gender diverse), ethnicity (Māori, NZ European, Other), age (18-24 years, 25-34 years, 35-44 years, 45-54 years, 55-64 years, 65-74 years, 75-84 years, 85 years and over), household income range <\$14,000, \$14,001-48,000, \$48,001-70,000, \$70,001-100,000, >\$100,000, Would rather not say), qualification level (1-10), being brought up rurally (yes, no), currently living in a town (yes, no), the number of children and or the number of adults present in the household was associated with respondent's choice selections (Table 13). Gender influenced selection choices for 'My cat is wormed according to product instructions' (male 82 % versus females 91 %) and 'My cat has caused me financial stress' (males 9 % versus females 19 %), with males being less likely to select these. Ethnicity was not found to be associated with the choice selections for each of the statements. An increasing age range was associated a decreasing likelihood that a cat or cats were being flea treated as instructed by the product, have up to date vaccinations, being occasionally groomed, having their owner clean their teeth owner and causing financial stress. Increasing household income was associated with an increased likelihood that a cat or cats teeth were cleaned by a vet and nails were clipped along with a decreasing likelihood of causing financial stress and the owner cleaning their cat's teeth. Qualification level influenced whether cat or cats were desexed, teeth cleaned by a vet and if the cat was a pedigree, all of these having an increased likelihood as qualification level increased. Those brought up rurally were less likely to select 'My cat vaccinations are up to date' (73 % versus 78 %), and 'My cat's teeth are cleaned by the vet when needed' (37 % versus 47 %) and more likely to select 'My cat's teeth are cleaned by me when needed' (12 % versus 8 %). Those respondents currently living in a town or city were more likely to have cats or cats that that were flea treated according to the product instructions (92 % versus 86%), had their teeth cleaned by a vet when needed (46 % versus 40 %) and their nails clipped (37 % versus 31%). As the number of children in a household increased the likelihood the cats of cats in the household being desexed decreased as did the likelihood the cat or cats were wormed, had their teeth cleaned by a vet, had their nails clipped or was regularly groomed and having caused financial stress. As the number of adults in a household increased there was a decreased likelihood of a respondent's cat or cats causing financial stress.

Forward stepwise binary regressions were used to explore what variables were associated with an owners choice of diet for their cat or cats (Table 14). A respondent's cat or cats were more likely to be fed biscuits from the supermarket as age range and the number of children in the household increased and less likely as qualification level increased. The opposite was true for the likely a respondents cat was fed specialised cat food from a pet shop or vet clinic. Gender and age range influenced if a respondent selected that they fed their cat or cats raw meat with females begin more likely (32% versus 22%) and those with increased age. As age range increased there was an increased likelihood the respondent selected 'My cat is fed wet food' and a decreased likelihood as qualification level increased. As the number of adults and children in the household

increased so did the likelihood that the respondent selected 'My cat is fed table scraps/human food'. This likelihood decreased with increased household income. With increased housed income also came a decreased likelihood that 'My cat is fed food that I have cooked for them' was selected. Whereas as age range increased there was an increased likelihood of a cat having a home-cooked meal. As age range and number of children increased there was a decreased likelihood that 'My cat is fed treats' was selected but an increased likelihood if the respondent was a town/city dweller (46% versus 40%).

Table 13. Positive responses to the question "Which of these apply to your cat/s?" and variables that impact on the likelihood of a positive response.

Answer Choices	n	Percentage	Associates variables and odds ratio (P value)
My cat is desexed	1490	97%	Qualification level 1.204 (0.016), Number of children 0.681 (0.004)
My cat is flea treated according to product instructions	1389	91%	Age range 0.856 (0.038), Town/city dwelling 1.934 (0.003)
My cat is wormed according to product instructions	1388	91%	Gender 0.368 (0.003), Number of children 0.757 (0.002)
My cat vaccinations are up to date	1172	77%	Age range 0.886 (0.012), Rural upbringing 0.738 (0.049)
My cat's teeth are cleaned by the vet when needed	677	44%	Household income 1.265 (<0.001), Qualification level 1.058 (0.045), Number of children 0.648 (<0.001), Rural upbringing 0.708 (0.015), Town/city dwelling 1.411 (0.019)
My cat's nails are clipped when needed	546	36%	Household income 1.125 (0.020), Number of children 0.818 (0.005), Town/city-dwelling 1.369 (0.034)
My cat is groomed (brushed or clipped) regularly	512	34%	Number of children 0.713 (<0.001)
My cat is groomed (brushed or clipped) occasionally	420	28%	Age range 0.862 (0.002)
My cat has caused me financial stress (e.g. vet bills)	282	19%	Gender: male/female 0.318 (0.030), Age range 0.855 (0.005), Household income 0.846 (0.006), Number of adults 0.818 (0.023), Number of children 0.803 (0.019)
My cat is a pedigree	144	9%	Qualification level 1.120 (0.012)
My cat's teeth are cleaned by me when needed	137	9%	Age range 0.771 (0.001), Household income 0.755 (0.001), Rural upbringing 1.656 (0.025)

Table 14. Positive responses to the question "Which of these apply to your cat/s?" and variables that impact on the likelihood (odds ration) of a positive response.

What do you feed your cat/s?	n	Percentage	Associated variables and odds ratio (P value)
My cat is fed cat biscuits from the supermarket	945	62%	Age range 1.164 (<0.001), Qualification level 0.941 (0.026), Number of children 1.330 (<0.001)
My cat is fed specialised cat food from a pet shop or vet clinic	682	45%	Age range 0.893 (0.008), Qualification level 1.102 (<0.001), Number of children 0.756 (<0.001)
My cat is fed raw meat	480	31%	Gender: male/female 0.455 (0.021), Age range 1.204 (<0.001)
My cat is fed wet food	871	57%	Age range 1.207 (<0.001), Qualification level 0.920 (0.002)
My cat is fed table scraps/human food	199	13%	Household income 0.807 (0.002), Number of adults 1.242 (0.016), Number of children 1.244 (0.009)
My cat is fed food that I have cooked for them	78	5%	Age range 1.253 (0.025), Household income 0.745 (0.012)
My cat is fed treats	683	45%	Gender: male/female 0.398 (0.003), Age range 0.882 (0.003), Number of children 0.704 (<0.001), Town/city dwelling 1.389 (0.024)

Attitudes Towards Pet Care - Dogs

Respondents were asked to respond with their level of agreement about statements regarding the care of pet dogs (Table 15 and Figure 10). For each statement, there was between 2280 and 2293 responses. Table 15 and Figure 10 show that nearly all of the respondents (>90 %) either agreed or strongly agreed that dogs should have access to adequate housing, have up to date worming, be microchipped, and have up to date vaccinations and flea treatments. More than three-quarters of the respondents (> 75%) also agreed or strongly agreed with regular vet checks, desexing, no appearance modification, and correct body condition and disagreed or strongly disagreed with being bred for certain looks.

Table 15. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for the "Dogs should..." statements regarding pet care.

Dogs should:	Strongly agree	Agree	Total	Neutral	Disagree	Strongly disagree	Total
Have access to adequate housing	90.9%	8.5%	99.4%	0.4%	0.1%	0.1%	0.2%
Have up to date worming treatment	66.7%	28.2%	94.9%	3.9%	0.8%	0.4%	1.2%
Be micro-chipped	77.4%	17.4%	94.7%	4.1%	0.8%	0.4%	1.2%
Have up to date vaccinations	69.8%	21.5%	91.3%	7.0%	1.4%	0.3%	1.7%
Have up to date flea treatments	63.5%	27.3%	90.8%	7.1%	1.5%	0.6%	2.1%
Have regular vet checks	54.5%	30.7%	85.1%	12.7%	1.9%	0.3%	2.1%
Be desexed	65.0%	18.3%	83.2%	14.7%	1.6%	0.5%	2.1%
Not have their appearance modified	68.4%	12.1%	80.4%	7.6%	3.8%	8.1%	11.9%
Have ribs, hips, and a spine that are not visible but are easily felt	32.6%	46.0%	78.6%	16.2%	3.4%	1.8%	5.2%
Not be trained using behaviour modifying collars	43.6%	21.0%	64.6%	20.6%	8.8%	6.1%	14.8%
Have a specialised diet from a pet shop or vet clinic	8.1%	19.5%	27.6%	55.9%	13.4%	3.1%	16.5%
Be bred for certain looks	0.8%	2.4%	3.2%	17.6%	27.9%	51.3%	79.2%

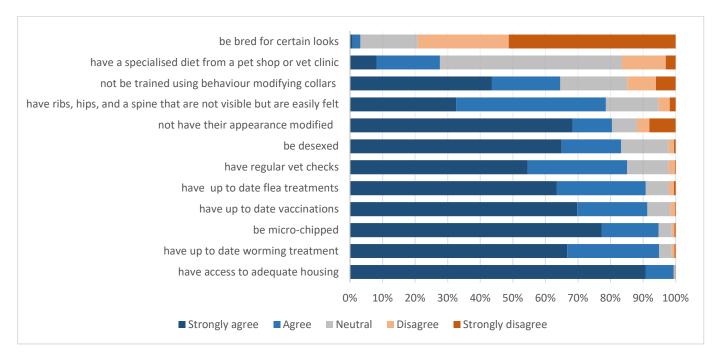


Figure 10. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for the "Dogs should..." statements regard pet care.

The following comment summarised the collective sentiments of many with regards to vet checks and flea and worm treatments,

They should have vet checks and flea and worm treatments etc when needed. But if your experience in what to look for health-wise i.e. keeping an eye on their weight, energy, behaviour changes, water consumption, physical changes etc and don't want to use chemicals on them all the time (flea worm treatments etc) I don't think it should have to be a constant thing to do. As long as your checking and looking out for them and get them treatment/checked with any concerns or if it's been a long period since they were checked or they are elderly etc.

Several of the respondent's comments highlighted that worming and flea treatment may not always be necessary, for example, "In Southland, fleas are not a problem so we don't use a flea treatment. We would if our dogs needed one though" and "Worming should be given on advice of a veterinarian to avoid resistance". Vaccinating young dogs was viewed as important some thought adults dogs were over-vaccinated, for example, "Puppy vaccination are super important but we over vax adult dogs." One respondent commented that "Vet care where I live is all owned by one company. It's very expensive and they often pressure people into unnecessary vaccinations and products".

With respects to microchipping, several respondents thought that a tattoo of the number inside the ear during desexing or while an animal was under anaesthesia would be beneficial if the microchip should fail. That latter was evidenced by this comment, "As an owner of hunting dogs that are a target for thieves, we have tattooed as well as microchipped. Our microchips have failed in the past so we require a fallback identification."

There were mixed views about appearance modification and in general tattooing for identification purposes was not viewed negatively. One respondent wrote, "Totally against chopping bits off dogs but tattooing etc for identification isn't something I am deeply concerned about". Several of the respondents left comments saying that aspects concerning appearance were breed and or context-specific. For example "Appearance modifiers which are for the health benefit of the dog are okay. Appearance modifiers for the sake of the human is not okay" and "Depends on the animal and it's job. Family has a hunting dog with a tattoo and a docked tail to prevent any injury from a broken tail." A similar theme also emerged from the comments regarding breeding for certain looks and this is reflected in the following quote, "If dogs are selectively bred in a responsible way that is not sacrificing their health then there isn't a problem" with several respondents "I'm ok with dogs being bred for certain looks if it's not detrimental to their health or temperament". A common theme was that all "...breeders should be registered and all other dogs should be desexed to prevent the amount of strays and puppy-farms around". A common perception in the comments regarding desexing was that it was being done when the animal is too young, for example, one respondent wrote "Desexing is done far too early, again, the evidence shows you should wait for the dog to fully mature so their hormones have settled and they've finished growing, usually around 2 years of age." One respondent went further and wrote, "I have read that it's best dogs are desexed after their growth plates have closed, around 18 months which I believe is best for the dog if the owner is responsible. However, that's not always the case so would be great to see ovary-sparing spay/vasectomy rather than traditional ops on younger dogs so they can keep their hormones needed for correct growth"

The statement regarding the use of behaviour modifying collars got a varied response with 64.6 % either agreeing or strongly agreeing that they should not be used for training, 20.6% selecting neutral and the remaining respondents supporting there use to some degree. Some of the respondents supported the use of citronella collars, leaving comments such as "I don't support shock collars or check chains, but used a citronella collar on a former dog of ours as we had had multiple complaints about barking to the council and they already had shelter, food and another dog for company etc, and it was that or rehoming" and "I would not use shock collars but have used citronella collars years ago for problem barking and it worked AND the dog was not

harmed or traumatised". Other respondents supported the use of shock collars in specific contexts, for example, "I think it is ok for a qualified trainer to use shock collars in need", "For some dogs, it is crucial that they have behaviour modifying collars. In some cases, these could be life-saving" and "I don't believe in shock collars for minor behaviours, but in instances where other animals lives may be at risk, i.e. kiwi aversion training, or stock aversion". One respondent shared,

One of my dogs stopped being aggressive after a single session with a shock collar which we did not continue as it changed his behaviour overnight. It took 11 months listening to bullshit about it damaging a dog before we tried it. Changed his and our lives as now he goes on group walks, is off-leash and can do all manner of activities before he was not able to be near motorbikes, bikes, children (he now works as a child therapy dog), trolleys, skateboards, men near me and other dogs.

One respondent managed to capture the themes from many of the responses to the majority of the statements with the comment,

Each of these things is down to the owner. The problem with shock collars or training collars, docking, branding etc is not a problem with loving owners who aren't going to injure or let someone injure their pet. I have dogs with docked tails and ears and it's not been a problem but someone people are cheap and cruel. It is the same for training collars, you have an idiot with a shock collar on their dog day in and day out vs someone who has a high quality, level adjustable collar used only for a short period of training.... it's not a one answer fits all, it's down to a moronic owner - it comes down to needing a license to own a dog and massive penalties for cruelty etc

The statement about specialised diet was meet with the most varied responses and several respondents highlighted that "Specialised diets aren't always necessary - not all supermarket brands are terrible" and that "Specialized diet should be provided if needed for health reasons etc".

For statements each dog pet care statements, cross-tabulations along with Chi-square and z-tests (α =0.05) were used to explore if the respondents answer choices were associated with gender, ethnicity, age range, household income bracket, qualification level, whether or not they had a child or children, whether or not they had a rural upbringing, or whether they were currently living in a town/city. Significant differences are reported in Table 16. The results suggest that gender, ethnicity, age range, having a child or children, having a rural upbringing and currently living in a town or city influenced certain choice selections whereas household income and qualification level did not.

In general, a higher percentage of females and town/city-dwellers tended to strongly agree with various statements whereas Māori, those with children and those that had a rural upbringing tended to have a higher percentage of neutral responses.

Table 16. Factors associated with the choice selections made by the 2019 Pet Survey respondents regarding the care of their dogs.

Dogs should:	Gender (female versus male)	Ethnicity (Māori compared to other ethnicities)	Age range	Have children (with versus without)	Rural upbringing	Town/city dwelling
Have regular vet checks		Higher % neutral		Lower % strongly agree; higher % neutral	Lower % strongly agree; higher % neutral	Higher % strongly agree; lower % neutral
Have up to date vaccinations	Higher % strongly agree; lower % agree	Higher % neutral	18-24 and 25-34 age range: Higher % strongly agree; lower % agree	Lower % strongly agree; higher % neutral	lower % disagree	Higher % strongly agree; lower % agree and neutral
Have up to date flea treatments			18-24 age range: Higher % strongly agree; lower % agree	Lower % strongly agree; higher % agree		Higher % strongly agree; lower % agree, neutral and disagree
Have up to date worming treatment			18-24 age range: Higher % strongly agree; lower % agree			Higher % strongly agree; lower % agree and disagree
Be desexed	Higher % strongly agree; lower % agree and neural	Lower % strongly agree; higher % neutral	18-24 and 25-34 age range: Lower % strongly agree; higher % neutral	Higher % neutral and disagree	Lower % strongly agree; higher % neutral	Higher % strongly agree; lower % disagree
Be micro-chipped		Lower % strongly agree; higher % neutral		Lower % strongly agree; higher % agree and neutral		Higher % strongly agree; lower % agree and neutral
Be bred for certain looks				Higher % neutral, lower % strongly disagree		Lower % agree
NOT have their appearance modified	Higher % strongly agree; lower % neural	Lower % strongly agree; higher % neutral				
Have a specialised diet				Lower % strongly agree and agree; higher % disagree		
NOT be trained using behaviour modifying collars	Higher % strongly agree; lower % neural and disagree		75 - 84 age range: higher % strongly disagree compared to 18-24, 25-34 and 35-44	Lower % strongly agree; higher % neutral	Lower % strongly agree; higher % neutral	Higher % strongly agree; lower % neutral
Have ribs, hips, and a spine that are not visible but are easily felt		Lower % strongly agree; higher % neutral				
Have access to adequate housing	Higher % strongly agree; lower % agree and neutral			Lower % strongly agree; higher % agree		

Attitudes Towards Pet Care - Cats

Respondents were asked to respond with their level of agreement about statements regarding the care of pet cats. For each statement, there was between 2238 and 2257 responses. Table 17 and Figure 11 shows that nearly all of the respondents (>90%) either agreed or strongly agreed that cats should have access to adequate housing, be desexed, and have up to date flea and worm treatments. Most of the respondents (>80%) also agreed or strongly agreed with up to date vaccinations, microchipping, regular vet checks, and disagreed or strongly disagreed with cats having their appearance modified.

Table 17. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for the "Cats should..."

statements regarding pet care.

Cats should:	Strongly	Agree	Total	Neutral	Disagree	Strongly	Total
	agree					disagree	
Have access to adequate housing	84.7%	13.2%	98.0%	1.6%	0.2%	0.2%	0.4%
Be desexed	81.3%	13.1%	94.5%	5.1%	0.3%	0.1%	0.4%
Have up to date worming treatment	67.4%	26.8%	94.2%	4.6%	0.8%	0.4%	1.3%
Have up to date flea treatment	66.4%	26.3%	92.7%	5.8%	1.0%	0.6%	1.6%
Have up to date vaccinations	63.3%	23.5%	86.8%	11.0%	1.8%	0.4%	2.2%
Be micro-chipped	66.3%	19.2%	85.4%	11.8%	2.1%	0.6%	2.7%
Have regular vet checks	52.2%	28.7%	80.8%	16.4%	2.3%	0.5%	2.8%
Have ribs, hips, and a spine that are not visible but are easily felt	27.1%	43.1%	70.2%	20.2%	6.6%	3.0%	9.6%
Have a specialised diet from a pet shop or vet clinic	8.0%	17.2%	25.2%	58.1%	13.3%	3.3%	16.7%
Be bred for certain looks	0.9%	1.9%	2.8%	20.3%	26.5%	50.4%	76.9%
Have their appearance modified (e.g. Branding, tattooing)	3.8%	1.0%	4.8%	8.3%	18.7%	68.2%	86.9%

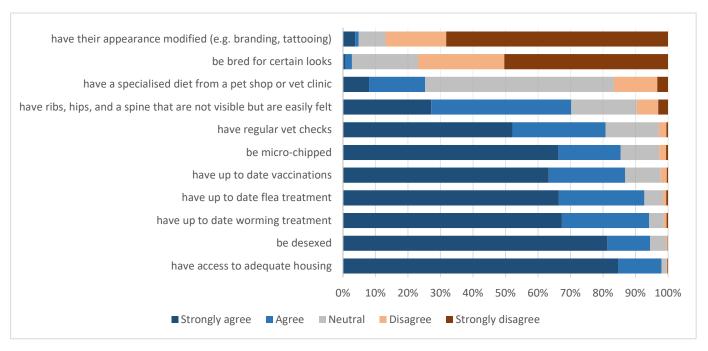


Figure 11. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for the "Cats should..." statements regard pet care.

Of the respondents, 187 provided addition comments to clarify their choice selection. Many comments were left regarding regular vet checks, and up to date vaccinations, and flea and worm treatments with all having a similar theme that these should only occur when needed. One respondent articulated this by saying, "…each animal needs to be treated as an individual, some have very different needs to others" while another said, "Flea and worm when required. Vaccinations only required if going into catteries/offsite". The issue of parasite resistance was highlighted in the comments. The cost of visiting a vet was mentioned in several comments and was viewed as excessive and prohibitive, for example, "Vets don't necessarily offer the best solutions for your pet. Too many are for money-making and not what's best for the animal. Some are just daylight robbers as far as I'm concerned" and "Vet costs need to be lowered so people can afford to take their whānau there"

A strong theme that there should be "Desexing for all pets, except for show/breeding cats" was also evident in the comments. One respondent went further and stated that "Law needs to change to ensure all pet cats are desexed unless you are a registered breeder. We have so many unwanted kittens and cats suffering needlessly in NZ". Likewise, there was a strong theme that pet cats should be microchipped. This and the previous theme are reflected in the quote "all cats should be desexed and microchipped". One respondent stated that "Cats should be microchipped so that if they are hit by a car the owners can be contacted or so that if the cat is in inappropriate areas hunting wildlife, it can be caught and the owners notified so they can keep the cat confined".

Of the respondents, 87% did not feel that pet cats should have their appearance modified. Others felt that is was acceptable but provided comments that revealed that this was context-specific, for example, "My only qualification is for if 'appearance modification' is actually for health reasons". An emergent theme was that tattooing was acceptable for reasons of animal and desexed status identification or to help prevent/delay skin cancer. This theme is reflected in the following quotes, "Tattooing is sometimes of significant benefit for identifying if a stray cat has been desexed (generally done under GA), but I do not agree with modifications for cosmetic reasons", "Tattooing seems more acceptable if done under anaesthesia in some situations (eg identification). In all cases, tattooing or dying fur for style should be banned" and "Tattooing on cats ears can help prevent/delay skin cancer". All of those respondents that chose to comment about breeding for specific looks had the following opinion, "Be bred for certain looks: agree if they are beneficial to the animal and not detrimental to their health".

The statement about specialised diet was meet with the most varied responses and the opinions reflected those provided for dogs with a specialise diet only being deemed necessary for health reasons, for example, "Same as dogs...cats should be looked after and fed accordingly....some may have dietary needs ...some are fussy. As long as they have owners that are aware of this..." and "Again if a specialised diet is required eg for kidney stones or weight loss then they should have it". It was also highlighted that "Cats should be fed food that contains mainly meat (not corn/wheat etc) since they are obligate carnivores".

There appeared to be mixed views with regards to the body condition of cats with some saying "Too many people have overweight cats" and others leaving comments such as "Not sure what average healthy cat hips, spine etc should look like/ feel like, my cat is very healthy but not sure if they're "easily felt", "I like cats to be a bit fatter for some reason. Just personal preference" and "My cats are well-fed, perhaps a little overweight but not obese". It was pointed out that some cats supplement their diets with hunting or visiting and it was, therefore, harder to control a cats diet, for example, "One of our cats visits the neighbours who feed him. He becomes overweight. People should not feed other people's pets".

The total percentage of those respondents that strongly agreed or agreed for each statement was compared for dogs and cats. Figure 12 shows that a higher percentage (> 5 % difference) of respondents thought that dogs should have the recommended body condition (ribs, hip and spine not visible but easily felt), and be

microchipped and a lower percentage (>5 % difference) agree with not having their appearance modified or be desexed when compared to cats.

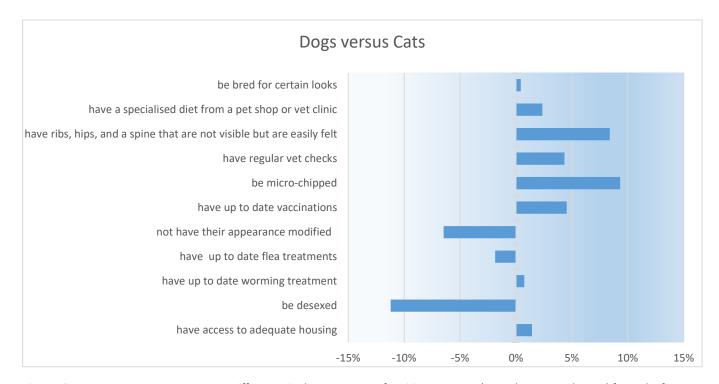


Figure 12. Dog versus cat owner response: Differences in the percentage of positive responses (strongly agree and agree) for each of the pet care statements.

In a similar fashion as was performed with the dog data, for each statement, cross-tabulations, Chi-square and z-tests (α =0.05) were used to explore if the respondents' choices were associated with gender, ethnicity, age range, household income, qualification level, whether or not they had a child or children, whether or not they had a rural upbringing, or whether they were currently living in a town/city. Significant differences have been reported (Table 18). The results suggest that gender, ethnicity, age range, having a child or children, having a rural upbringing and currently living in a town or city influenced certain choice selections about the care of pet cats. Unlike dogs, household income and qualification level were also associated with come choices. Again, a higher percentage of females and town/city-dwellers selected strong response while those with children had a lower percentage of strong responses.

Table 18. Factors associated with the choice selections made by the 2019 Pet Survey respondents regarding the care of their cats.

Cats should:	Gender (female versus male)	Ethnicity (Māori compared to other ethnicities)	Age range	Household income	Qualification level	Children (with versus without)	Rural upbringing	Town/city dwelling
Have regular vet checks		Higher % neutral	35-44: Higher % neutral than 18-24 and 25-34 year age ranges			Lower % strongly agree; higher % neutral and disagree	Lower % strongly agree; higher % neutral	Higher % strongly agree, lower % neutral and disagree
Have up to date vaccinations		Higher % neutral	18-24: Higher % strongly agree and lower % neutral than 35-44, 45-54, 55-64			Lower % strongly agree; higher % neutral		Higher % strongly agree, lower % agree and neutral
Have up to date flea treatments			18-24: Higher % strongly agree and lower % agree than 35-44, 45-54, 55-64	48-70K: Higher % strongly agree and lower neutral than 70- 100K		Lower % strongly agree; higher % agree and disagree		Higher % strongly agree, lower % agree, neutral and disagree
Have up to date worming treatment	Higher % strongly agree; lower % neutral and disagree		18-24: Higher % strongly agree and lower % agree than 35-44, 45-54, 55-64	48-70K: Higher % strongly agree than 70-100K		Lower % strongly agree; higher % disagree		Higher % strongly agree, lower % agree and disagree
Be desexed	Higher % strongly agree; lower % agree	Lower % strongly agree; higher % neutral	18-24: Lower % strongly agree than 25-34, 35-44, 45-54, 65-74	48-70K: Higher % strongly agree and lower neutral than 70- 100K				Higher % strongly agree, lower % agree
Be micro-chipped		Lower % strongly agree; higher % neutral	18-24 and 25-34: Higher % strongly agree than 55-64		>level 7: higher % strongly agree	Lower % strongly agree; higher % agree, neutral and disagree		Higher % strongly agree, lower % agree and neutral
Be bred for certain looks	Higher % strongly disagree, lower % neutral and agree					Lower % strongly disagree; higher % disagree and neutral		
Have their appearance modified						Higher % disagree, lower % strongly agree		
Have a specialised diet			18-24 and 25-34: Higher % agree and lower % disagree and strongly disagree than 35-44 and 45-54			Lower % strongly agree and agree; higher % disagree		
Have ribs, hips, and a spine that are not visible but are easily felt		Lower % strongly agree; higher % disagree or strongly disagree		14K and 14-48K; Higher % disagree than >100K				
Have access to adequate housing	Higher % strongly agree; lower % neutral and strongly disagree	Lower % strongly agree				Lower % strongly agree; higher % agree and neutral		

Attitudes Towards Euthanasia

Respondents were asked to indicate their level of agreement about statements regarding the euthanasia of dogs and cats. For each statement, there was between 2274 and 2293 responses. Table 19 shows that the majority of respondent disagreed or strongly disagreed with euthanasia of strays, unwanted pets or pets of an owner who could not afford treatment with a slim majority ageing of strongly agreeing with sick animals being put down. The highest percentage of neutral responses 'if they are sick', 'if they are feral' and 'if the owner cannot afford treatment'.

Table 19. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for the "Dogs and cats should be put down if..." statements regarding euthanasia.

Dogs and cats should be put down if:	Strongly agree	Agree	Total	Neutral	Disagree	Strongly disagree	Total
they are strays (they are homeless pets)	1.4%	4.9%	6.3%	17.0%	36.3%	40.5%	76.7%
they are no longer wanted by their owner	0.7%	1.6%	2.3%	7.5%	27.9%	62.4%	90.2%
they are sick	13.2%	37.5%	50.7%	32.6%	10.6%	6.1%	16.7%
the owner cannot afford treatment	2.1%	8.3%	10.4%	23.3%	32.2%	34.1%	66.3%
they are feral (they have become wild)	14.3%	21.3%	35.6%	29.0%	20.6%	14.9%	35.5%

A total of 653 respondents provided a further explanation in the comments section. A basic thematic analysis of these comments is presented in Table 20. In general, euthanasia was viewed as a complex issue and as a human option that can protect the animals themselves (and humans and or other wildlife) from distress and or low quality of life. It was apparent that the respondents thought the choice to euthanise should be a considered decision made with veterinary/professional input and not just for convenience, and that animals have a right to live. It was highlighted that better regulations and resourcing would reduce the need for euthanasia.

Table 20. Thematic analysis of comments provided about euthanasia by 2019 New Zealand Pet Survey respondent.

Theme	Subtheme	Representative quotes
Complex/Not black and white	Difficult to answer questions	"As a vet nurse, every case is circumstantial, so it's hard to give a definitive answer" "Euthanasia isn't black and white, so many factors come into it - for example, if your pet is sick but can recover there shouldn't be a need to euthanase, but if it's sick and not getting better, cancer for example, then having them put to sleep before they lose quality of life I feel is the best thing to do. The above questions are too hard for me to accurately answer"
	Depends on context	"It is extremely situational, depending on the animal and/or the owner" "The 2 neutral responses is because it depends to what extent they are sick or feral" "I don't think it's quick as black and white as the above. There are a lot of different circumstances eg with feral cats or how sick they are" "There are so many variable in the answers. Some animals are to wild to be tamed, they can be a problem, yes they can be put down.

		There are sad cases where people just cannot afford treatment. Who
		pays, what is the right answer to that I dont know."
Humane last option	If terminally ill	"If they are suffering (e.g. severely injured with little chance of a
		satisfactory recovery, or terminally ill, euthanasia is often the kindest
		choice. Sometimes people spend a lot of money in attempts to
		prolong the life of a terminally ill pet, and sometimes a person
		chooses euthanasia instead of expensive treatment that they cannot
		afford, or treatment that causes additional suffering and distress to
		the animal. I believe people should be guided by a vet to make an
		informed and humane decision"
	To prevent suffering	If the animal is suffering with no chance of rehabilitation then
	,	euthanasia is the most humane option. This is the only time I think it
		is acceptable. If they are sick, but can get better, or can be humanely
		managed without causing suffering then they should not be
		euthanised"
		"Animals should be put out of their misery"
	If dangerous/harmful	"If they are terminally sick or serious negative behaviour that cannot
	in dangerous/nammar	be undone yes to euthanasia but not for other reasons"
		"Feral/wild cats and dogs can be aggressive and can cause serious
		harm to surrounding birdlife, children and visitors. I think these
		animals should be put down as they require a lot of training etc to
		become a "loving" pet"
	If low quality of life	"Only be euthanized if the quality of life has degraded enough that
	If low quality of file	they are in pain and unable to live a happy healthy life"
		"Only if they have a low quality of life that cannot be remedied by other means"
		"No animal should be put to sleep unless they have little to no quality
		of life from injury/illness or old age. Even feral cats can be on
		occasion tamed or rehomed as barn cats on farms/lifestyle blocks. I
		personally have tamed numerous previously unsocial cats. Dogs can
		always be retrained by a professional and do not need to be put down"
	For feral animals	"I only believe in euthanasia if every option has been exhausted for a
		stray that has turned feral. It's the absolute last option."
		"I believe that feral animals can change with intensive care and time,
		only if this fails should euthanasia be considered"
		"Feral - it's all about if they can be domesticated. If they remain feral
		we can't let them back into the wild not fair for them or our wildlife"
		"If a pet can be re-trained and adopted to someone (strays) then they
		should be given the chance to do so. Unfortunately, this is rarely
		possible with ferals and putting them down is the best way to ensure
		New Zealand wildlife remains unaffected"
Protects welfare	Humane option	"If an animal is ill and in pain with a condition that is untreatable or
	·	likely to cause significant loss of quality of life then I believe the most
		humane option is to euthanase it. Similarly, some feral cats live in
		conditions that cause them to be parasite ridden and to carry
		diseases that are dangerous to other animals. Often, feral cats have a
		poor quality of life and for this reason, it may be more humane to
		euthanase them"
		"Euthanasia is always a humane option. Not always an ethical option,
		but it does adequately protect welfare"
		"In the case of an extremely sick animal where it would be more
		humane to euthanise them, then I think that's the best thing to do"
	Better/kinder option	"Euthanasia should be an option whenever quality of life is reduced,
	better/kinder option	so can be applicable to all above scenarios, but is not always the best
		option. Suffering, however, is far worse than euthanasia" "Animals
		better euth'd than having untreated illness or injury"
		"I am involved with a dog rescue, and feel that euthanasia is the
		kindest option if a dog is sick and the owner cant afford treatment, if
		the owner cannot find a good home for their dog and they no longer
		want / or can have the dog"

		"Euthanasia in my mind is better than neglect or abuse of the animal if someone is financially strapped. I prefer a no-kill mentality, but it's
		not a perfect world and sometimes euthanasia is best.
	When resources are	Re if they are feral, I believe if they become ill, injured, not
	limited	spayed/neutered by community, then they should be euthanised"
		"Also, it's no kindness to let an animal suffer if the owner has limited
		financial resources, so again, euthanasia may be a kinder option than
		allowing the animal to be in pain"
	When alternatives	Wouldn't be fair to force a feral animal to exist in distressing
	result in a low quality	captivity, unfortunately can't release them either"
	of life	"Its not a simple situation - in my view, morally no animal should be
		put down if they are lost, unwanted, feral or the owner can't afford
		to treat BUT if the other options provide poor quality of life, euthanasia must be an optionits not an either or situation.
Only on vet		"Vets should be able to make an informed decision if a dog/cat is
recommendation/advise		suffering and has a sickness/etc that cannot be cured, or if an animal
recommendation, advise		is beyond taming and is a danger"
		"Euthanasia should be utilised in accordance to recommendations
		from a Vet"
		"Unless a dog or cat are too sick to have a good quality of life, or they
		have a life-ending illness that a vet feels the best option would be to
		end their suffering, there is no excuse for putting them to sleep"
Should not be for for		"I don't agree with people putting animals down just for
convenience		convenience"
		"It is unacceptable to put an ill animal down merely because the
		illness is an inconvenience for the owner"
		"Euthanasia when owners don't want the animal anymore should be
Har aulicas a last usasut	A ft - n - n - f i - n - l	banned"
Use only as a last resort	After professional input	"Euthanasia is a valid option when other options are exhausted. Ideally the other options are explored in consultation with the
	iliput	relevant professionals.
	For sick animals	"I think all animal should be given the chance to prove themselves. If
	1 of Sick diffinitions	their sickness is not treatable or is going to cause them to suffer then
		yes, euthanise. Euthanasia is a last resort!"
	For healthy, friendly	"If an animal can be homed it should not be euthanized, euthanasia
	animals	should only be a last resort option for a healthy friendly animal"
		"I can reluctantly accept that some stray or unwanted dogs or cats
		can't be rehomed, but I'd like to see such euthanasia to be a last
		resort, and done humanely"
		"Last resort - having worked at SPCA the last 7 years have seen so
		many success stories an effort has to be made to save if possible"
	For wild cats:	"A wild cat can still be tamed given patience and if it still won't ever
	Trap, neuter,	be friendly enough for a home, it can be desexed & released to a farm to catch mice & rats. Euthanasia should be the last resort"
	vaccinate, return or rehome	"Wild cats can be desexed & released. Death should be last option for
	renome	any creature not the first"
		"Feral cat colonies shouldn't be desexed and released, they should be
		homed or put down. They devastate our native wildlife!"
	Limited resources	"Regarding the euthanasia of strays, I think it's a terrible thing to
		happen however I do understand the limitations of pounds/SPCA's
		and that sometimes there is no other option"
		"There are organisations ie SPCA or cat protections organisations that
		will take these cats, however, if the owner can't get their cats into
		these, yes they should be put down"
		"If a pet is sick and owners cannot afford treatment, surrendering to
		a rescue should be talked about first, but euthanasia may be
		appropriate if there are no rescue organizations willing to pay for treatment and rehome
Right to live	Deserved by every	"If TNR is available and the community or an individual ensures they
MgHt to HVC	animal	are fed, they have every right to live"
	ammai	"Every animal deserves a chance to live, be neutered and if feral trap
		neuter release"
		""ALL cats deserve to live and homes CAN be found for them."
	I	

	1 0	
Feral animals	Euthanasia unfair All should be put down	" if an owner doesn't want them anymorethen the owner should at least have the decency to rehome them to a loving homeif the animal is sick and its quality of life is greatly compromised then yes the option to put them down should at least be discussedif the own cant afford treatment, we have the option of surrendering it to the SPCA my cat (now 10) was a wild cat now shes the most loving, loyal animal you'll ever meettheres always hope of finding a loving cat with a feral one until proven otherwise" "I think to put an animal down because it is feral isn't fair. We have a cat whom came to us as a wild kitten she is lovely and friendly." "Feral cats should definitely be euthanized, feral dogs should too" "Feral cats should absolutely be put down" "I do think there are too many feral cats and strays. I am not one to
		keep animals alive at all costs" "Feral animals live a horrifying existence of disease and danger. They don't have the basic sociability to be rehomed without intensive work and death is preferable to them living in miserable conditions at risk of illness and injury while starving"
	For wild cats: Trap, neuter, vaccinate, return or rehomed	"Feral cats? The research I have read on feral cats seems to support an argument for their remaining as rodent control." "Euthanasia is a difficult situation. In terms of stray/feral populations, catch & kill methods simply create another niche for more ferals to move into. It's much more effective to catch, fix and release so the wild populations can't breed and create more kittens" "I think feral cats should go through a TNR programme, except in some areas where releasing them would be damaging to endangered wildlife. But they should definitely be neutered so the feral population diminishes" "If able to be domesticated then they should be trapped, socialised, neutered and found a loving home"
	Regional/District responsibility	"There need to be a system in place for catching and disposing of stray/feral cats! In the past couple of weeks I have caught and had to pay to have feral cats put down by my vet. No one, not the District Council or Environment Southland take responsibility for this and it is a burden on my finances. It may mean I use a "kill" trap instead and this puts my neighbours pets at risk"
Preventable by better regulations/resourcing	SPCA/Animal welfare organisations	Strays can be managed and in many cases can be tamed and homed. If owners no longer want their pets, they should be legally obliged to surrender them to the SPCA or an animal refuge. The SPCA and animal refuges should be supported with central government funding" "There are hundreds of welfare organisations that rehome and rehabilitate homeless/unwanted pets. If the pet is adoptable (in health and temperament) there is no reason to kill them"
	Multifaceted approach needed	A pet is for life and deserves to be loved and well looked after. Cheap professional desexing, landlords allowing pets in rentals, harsher penalties for cruelty, more education from a young age and help from government to fund those many rescue charities would help alot of the abandonment that is unfortunately increasing so much"

For each statement about euthanasia, a cross-tabulations along with Chi-square and z-tests (α =0.05) were used to explore if the respondents' choices were associated with gender, ethnicity, age range, household income, qualification level, whether or not they had a child or children, whether or not they had a rural upbringing, or whether they were currently living in a town/city. Significant differences have been reported in Table 21. The results suggest that gender, ethnicity, age range, qualification level, having a child or children, having a rural upbringing and currently living in a town or city influenced certain choice selections. No association with household income was observed.

Table 21. Factors associated with the choice selections made by the 2019 Pet Survey respondents regarding the euthanasia of dogs and cats.

Dogs and cats should be put down if:	Gender (female versus male)	Ethnicity (Māori compared other ethnicities)	Age range	Qualification level	Children (with versus without)	Rural upbringing	Town/city dwelling
they are strays (they are homeless pets)	Lower % strongly agree and agree; higher % strongly disagree	Māori and NZ European: Higher % neutral compared to other; lower % strongly disagree	65-74y: Higher % strongly agree compared to <45; 55-65: Higher % agree compared to 18-24y	Level 10: higher % neutral compare to level 3	Higher % neutral and strongly disagree	Higher % agree and neutral; lower % strongly disagree	Lower % agree
they are no longer wanted by their owner	Lower % agree and neutral; higher % strongly disagree	Māori and NZ European: Higher % neutral and disagree compared to other; lower % strongly disagree	65-74 and 75-84y: Higher % neutral compared to 18- 24y		Higher % disagree and strongly disagree	Higher % disagree; lower % strongly disagree	
they are sick		Māori and NZ European: Higher % agree compared to other	65-74 and 75-84y: Higher % strongly agree compared to 18-24y		Higher % agree		Lower % strongly agree; higher % neutral
the owner cannot afford treatment	Lower % strongly agree and agree; higher % strongly disagree	Māori and NZ European: lower % strongly disagree compared to othe	65-74: Higher % strongly agree compared to 18-24, 45-54, 55-64y; 75- 84% higher % agree compared to 45- 54y			Higher % strongly agree, lower % strongly disagree	
they are feral (they have become wild)	Lower % strongly agree; lower % disagree	NZ European: Higher % strongly agree compared to other; Māori: higher % neutral compared to other. Māori and NZ European: lower % strongly disagree compared to other	18-24y: Lower % strongly agree compared to 35-75y,	Level 10: higher % strongly agree compared to levels 7, 3 and 2.	Higher % strongly agree, lower % strongly disagree		Lower % strongly agree

Attitudes Towards Financial Costs Related to Pet Care

Respondents were asked to respond with their level of agreement about statements regarding the financial costs related to pet care. For each statement, there was between 2287 and 2296 responses. Table 22 shows that more than 80 % of respondents agreed or strongly agreed that expense is a factor int eh level of health care that dogs and/or cats received and that people should only own a pet if that can afford to keep it. Only 36% of respondent thought that pet insurance was important.

Table 22. Percentage of 2019 New Zealand Pet Survey respondents selecting each level of agreement for each statement regarding

some of the financial aspects related to pet care.

	Strongly	Agree	Total	Neutral	Disagree	Strongly	Total
	agree					disagree	
Expense is a factor in the level of vet/animal health care that dogs and/or cats receive	37.8%	46.1%	83.9%	6.2%	6.1%	3.8%	10.0%
Pet insurance is important	14.3%	21.6%	35.9%	46.7%	14.3%	3.2%	17.4%
People should only own a pet if they can afford to keep it	56.8%	32.1%	88.8%	8.1%	2.2%	0.8%	3.1%

A total of 319 respondents left comments from which several themes emerged (Table 23), these were: That vet care and pet insurance are expensive and pet insurance often has exclusions; that pet should only be owned by those that can afford them and that pets are a luxury and a privilege; that if you own a pet you need to save for unexpended costs and that sometimes situations change and that there should be financial assistance; that pet care needs to be more affordable; that owners have differing priorities; that sometimes costs results in pets being euthanised and that education and planning are important.

Again, for each statement, cross-tabulations, Chi-square and z-tests (α =0.05) were used to explore if the respondents' choices were associated with gender, ethnicity, age range, household income, qualification level, whether or not they had a child or children, whether or not they had a rural upbringing, or whether they were currently living in a town/city. For the statement 'Expense is a factor in the level of vet/animal health care that dogs and/or cats receive', household income level was associated with a higher percentage of those respondents with a household income between \$48-70K selecting strongly agree (45 % versus 33 %) and lower percentage selecting strongly disagreed (2 % versus 6 %) when compared to respondents who had a household income of over \$100K. A rural upbringing was also associated with the choice selection for this statement with a higher percentage of those respondents brought up rurally agreeing (50 % versus 45 %) and less being neutral (4 % versus 7 %).

With regards to 'Pet insurance is important', age range, household income, qualification level presence of children in the household and town or city dwelling were associated with answer choices. Age range 18-14 and 25-34 higher percentage of strongly agreed (22 % and 25 %, respectively) and lower percentage selected neutral (34 % and 35 % respectively) compared to all other age ranges up the 75 years of age (strongly agree range 0-13 %; neutral range 49-61 %). For household income, those with \$14-48K and \$48-70K there was a lower percentage of respondents that selected strongly agree (both 11%) compared to those who had a household income of over \$100K (19 %). A higher percentage of those respondents with a level 7 qualification selected strongly agree (19% compared with those who had a level 1 qualification (6%). For those respondents' with children, a lower percentage strongly agreed or agreed (11 and 19%, respectively versus 16% and 23%, respectively) and a higher percentage selected disagree (18% versus 13%).

The final statement in the finance section was 'People should only own a pet if they can afford to keep it'. A higher percentage of those in the 18-24 and 25-34 year age ranges strongly agree (67% and 66%, respectively) compared to those between 55-64 years of age (47%). For household income, those between \$14-48K had a

lower percentage of respondents that selected strongly agree (48%) and a higher percentage selecting neutral (15%) compared to those who had a household income of over \$100K (63 % and 7%, respectively). No other significant associations were observed.

Table 23. Thematic analysis of comments relating to some of the financial aspects of providing pet care made by 2019 New Zealand Pet Survey respondent.

Theme	Representative quote'
Vets and pet insurance are	"I think expense is a factor for a lot of people because vets are very expensive."
expensive	"Pet insurance is too expensive"
	"But not all vet care can be expected and planned for. And insurance is pricey. If you may not
	need sad gamble"
Pet insurance has exclusions	"Pet insurance is unavailable for older cats - so my cat (age unknown) cannot get insurance"
	"Pet insurance exclude a lot of conditions, especially if you own a large or giant breed dog"
Only have a pet if you can	"If you can not afford basic care of a pet and all it entails they shouldn't get it."
afford its basic care	"No matter how much benefit a person or family receive from having a pet cat or dog, if they
	are unable to afford it, the animal suffers"
Pets are a luxury/privilege	"I feel that a pet is a luxury these days and people must see if their budget will allow for a pet
	- before getting one."
	"Owning a pet is a privilege"
	"Its a luxury not a right to have a pet"
Need to save	'I put money aside at the vets on a regular basis. My form of health insurance"
	"Pet insurance is expensive. We save money each week and use it to pay vets fees when
	required"
Financial situations change	"financial circumstance can chang after a pet has been in the family for a while"
	"People's circumstances change they shouldn't lose their pets because of this"
	"Not everyone has the same circumstances pets bring great joy to families who already may
	not have much, circumstances also change, important to be open-minded"
Assistance to pay	"people should have access to services that can help with the cost of pet ownership -
	subsidised vet services, etc. To bar people on lower incomes is unfair"
	"People fall on hard times sometimes- there should be support that includes them and their
	pets"
Pet care costs should be	"Vet care should be better regulated as costs are prohibitive. The fact that Insurance is so
affordable	highly recommended is indicative of this."
	"Having a pet should be affordable"
	"Children/families should have good/appropriate access to animals in their lives. Shouldn't be
	prioritised by affordability"
	"But should be options for people of limited means e.g. pensioners"
Differing priorities	"There are some people out there who don't have much money but will always put their
	animals first"
	"We cant afford pet insurance, however, we would rather go without if it meant our cats
	needed medical attention"
	"For some people expense is a problem and pets go untreated if they cannot afford to pay"
Euthanasia	"I do no that some dogs and cats get put down because that is the cheaper option sometimes
	for the owner which is sad."
	"I hear of so many people who have their furbaby put to sleep just because they think the
	cost is too much. So sad"
	"Veterinary clinics are basically a business and I have seen cases where people who cannot
	afford operations for their pets have had to have them euthanised, which is tragic"
Education and planning	"I strongly agree with the last one but equally I live in the real world - people will always take
	on pets not realising the costs - its a matter of education and have back up plans for people
	who get stuck (ie animal shelters agreeing to take on pets when people hit hard times,
	encouragement to set up saving schemes with the vet, advice on how to prevent vet bills in
	advance (eg getting your pet fixed)"

Human Health and Wellbeing

This section of the survey had a total of 2301 respondents. The majority of all respondents (>90 %) agreed or strongly agreed that owning a pet was beneficial for one's mental, social and physical health, with the strongest level of agreement being for mental health (Table 24).

Table 24. Levels of agreement of respondents to whether owning a pet is beneficial to their mental physical and social health and

welli	being.	

	Strongly	Agree	Total	Neutral	Disagree	Strongly	Total
	agree					disagree	
Mental	83.9%	14.9%	98.9%	0.8%	0.2%	0.1%	0.3%
Physical	69.1%	25.8%	94.8%	4.8%	0.2%	0.1%	0.4%
Social	64.5%	27.3%	91.8%	7.4%	0.6%	0.2%	0.8%

Of the 2301 respondent, 95 chose to provide further comment. A strong theme in the comments was that both cats and dogs were both beneficial for mental health and wellbeing but that dogs were more beneficial for both physical and social health and wellbeing. This is evidenced by the following representative quotes, "Pets often give company and affection to their owners and they can be amazing support. Also by looking after them it can take the focus off just thinking of yourself", "I suffer chronic recurrent depression and anxiety. With my dog by my side I get out and do more, they keep me calm and focused, and thus my mood is helped" and "I would say a dog impacts more on the physical & social health, because it has to be walked, while the cat is more inside the home." Many of the comments acknowledge that dog walking provided positive social interactions, for example "Having a dog is a good excuse to get out and about. People tend to talk to you when you're walking a dog but not when you're just walking by yourself!"

Some of the respondents indicated that having a pet could be stressful, for example, "Having a reactive dog can be very stressful". While others perceived owning a pet as potentially detrimental to the mental health of others, saying, "Can be negative for mental health if chronic illness in pet -> financial and emotional toll on owner" and "Provided people can afford them otherwise I could see them being a real strain on mental wellness" and "Although it is beneficial hugely it also comes with a great responsibility that can be a stressor to some people, so while for some it is the best thing since sliced bread for others the responsibility mentally about having to look after and care for it and always be home to feed it etc can be too much so it is important that people recognise if they have the capability to handle all of that and not just get a dog because they want the companionship". Interestingly no personal experiences of financial stress due to a pet negatively impacting on mental health were shared by any of the respondents.

Another strong theme was that pets are amazing and provided unconditional love and companionship and teach people especially children important qualities. This theme is reflected in the following quotes "Pets are amazing. They provide unconditional love", "A great way to teach children how to care for a living being" and,

Animals are amazing creatures. They can do things for our health that we'll never know. My husband came from a Māori family that never kept pets. He had no idea what it was like to have a dog as a friend, a cat as a buddy. Now he does. He has much more empathy, patience, understanding. He loves them as much as I do

Several respondents highlighted that any health and wellbeing benefits were dependent on the pets being treated well, writing statements such as "Only if people treat it [the pet] right. Animal abuse or neglect isn't beneficial. Often people make choices which benefit them more than their animals and vice versa" and "People who neglect and abuse animals do not gain the well-being benefits of having them", and

If the pet is well looked after it can be all of these things stated. If the animal is roaming freely and hunting wildlife it contributes to a stressful environment for neighbours and wildlife. Contributes to the opposite of the list above

Roaming Dogs and Cats

In response to the question "Do you think that roaming pet dogs and cats are a problem?", 72 % (n = 1654) selected Yes, 16 % (n = 360) selected 'No', and 12 % (n = 278) selected 'Never thought about it'. A series of cross-tabulations along with Chi-square and z-test analyses were performed to explore which variables were associated with these answer choices. Gender, ethnicity, and household income were not found to be associated with the choices made with similar percentages for all groups within the category. Several age range groups differed significantly the percentage of 'Yes', 'No' and 'Never thought about it' choices (Chi-square P<0.001, z tests P < 0.05). A lower percentage of those aged 18-24 years selected 'Yes' (65%) and more selected 'Never thought about it' (15%). A higher percentage of those aged 35-44 years selected 'Yes' (77%) and less selected 'Never thought about it' (8%). A higher percentage of those aged 45-45 years selected 'No' (21%) and less selected 'Never thought about it' (8%).

Qualification level also affected the percentage of 'Yes', 'No' and 'Never thought about it' choices (Chi-square P<0.001, z tests P<0.05) with a higher percentage of those respondents with a Levels 2 or 3 selecting 'Never thought about' (19%) and a higher percentage of those respondents with levels 1 and 6 qualifications selected 'Yes' (81%). It was difficult to discern any other trends.

Those who did not live in a town or city were more likely to consider roaming pets an issue (79% versus 70%), while a higher percentage of those who lived in town or city selected 'No' (17% versus 12%) or 'Never thought about it' (13 % versus 9%). Interestingly a higher percentage of those respondents owning a dog or dogs selected 'Yes' they considered roaming pets an issue (74 % versus 69%) with a lower percentage selecting 'No' (14% versus 19%) but the reverse was true for cat owners with a lower percentage selecting 'Yes' (71% versus 75%) and a higher percentage selecting 'No' (17% versus 13%).

Of those that selected 'Yes' they considered roaming pets an issue, 1479 provided an explanation. A basic thematic analysis of the explanations is presented in Table 25. The major themes were animal welfare, better ownership qualities, regulations and restrictions (more required and enforcement), the impact of social media, desexing, increased risks (to the roaming animal, other animals, humans and the environment), nuisance and lastly differing views on whether dogs are cats are more of an issue.

Table 25. Thematic analysis from explanations provided by 2019 New Zealand Pet Survey respondents indicating why they considered roaming dogs and cats a problem.

Theme	Subtheme	Representative quotes
Animal	Unfair	"It is unfair on the pet. I don't think it's so much an issue for the people, but pets need to belong
welfare		to someone and be cared for"
	Lacking	"they aren't receiving adequate care to be healthy and happy"
		"Low standard of welfare. Spread disease"
		"Poor quality of life for them"
	A right	"All animals deserve to be treated with kindness and respect"
		""All pets should have a home & be looked after properly. It's sad to see pets roaming. Could be
		run over by traffic & will be scared & hungry"
	Concerns	"Potential welfare concerns related with roaming i.e. lack of vaccinations, causing unwanted
		pregnancies, disease, injury i.e. hit by car, people develop negative emotions towards roaming
		animals and don't see them as requiring the same compassion an owned animal would"
		"Roaming also doesn't provide the structure that a home does and it's easy for those animals to
		be mistreated and become malnourished. This can lead to aggression which is obviously and
		issue"

Owners	Need to be more responsible	"Owners need to take more responsibility for the safety & security of their pets"
	Need to protect	"Pets are your responsibility as an owner and other people might not like pets and having them
	other people and	roaming could be uncomfortable for those people, also the safety of the pet is in question -
	pets from distress	roaming pets could be at higher risk of being in road accidents or contracting illnesses from
	or harm	interactions with other animals"
	Lack of control	"Out of control, not fed regularly, disease a problem, can cause environment issues with
	Lack of Control	domestic animals in locality"
		"too many dogs roaming out of owner control"
	Need education	"in NZ we need to raised awareness of cat condos and walking dogs on leash and keeping
	Need education	
		them supervised"
		"Education and perhaps more stringent enforcement and penalties around companion animal ownership are necessary."
		"people need to be trained to teach cats to hunt mice by rolling things across the ground rather
	D	than those feather wand bird training tools sold at pet shops & vets"
	Demographic factors	"Lower socioeconomic areas have a constant stream of roaming dogs."
Regulatio	Should be upheld	"The animal can go and harm other pets, the owners should be dealt with"
ns/restrict		"We live in a rural town, dog control officer is useless"
ion	Cats should be	"Free-roaming cats are responsible for huge loss of birdlife, yet their owners do not have to
	regulated the same	operate under the same rules as dog owners. If I have to pay for dog registration, then so
	as for dogs	should cat owners"
		"Cats should be restricted in the same way as dogs for the sake of wildlife and their safety"
		"I support moves towards restricting cats to their owners' properties, preferably in
		environmentally enriching cat runs and/or indoors"
		"Animals need to be cared for and safely contained night and day. Cat or dog"
	Lack of help or	"The council does not help with roaming or stray cats"
	resources	"A lot of the time stray animals aren't desexed so there are lots of kittens and puppies born.
		These can get sick and spread diseases and are a stretch on the SPCA and other rescue
		organisations."
	Desexing and	"Desexing & microchipping of animals must be enforced for the animals benefit."
	microchipping	
Social	Free or selling	"I see alot of people on face book selling or giving away cats."
Media	animals	
	Found animals	"There's often dogs posted in Facebook asking who owns x dog found with no tags or collar"
		"I see alot of people on face book selling or giving away cats. Also alot of cats are found without
		knowing who they belong to"
	Animal stories	"See posts of people who have had pets attacked by strays"
	Stirs up negativity	"I also find a lot of general hatred in my community towards roaming cats. Someone posted on
		the community Facebook page that their neighbour's cat keeps defecating in their garden and
		the amount of comments suggesting that person kill the cat (air rifle, antifreeze) was appalling
		and frightening."
Desexing	To improve	"Male cats tend to fight in not desexed, they can come home wounds of some sort"
	behaviour	"If they have not been desexed or cause havoc. It's an issue"
	To limit stray and	"Many roaming dogs are generally not desexed so there will be more unwanted puppies etc
	feral populations	who get into the wrong hands"
		"Roaming cats are a problem if they are not desexed as they have many litters that often turn
		into strays - continuing the cycle"
		"Increase in feral populations if not desexed
	Cost	"Owners can't afford to desex them so they breed"
Increased	Of being dangerous/	"Espescially for dogs, often means they are not well cared for and can be a danger to other
risk	causing harm	animals and humans"
. 1510	Sadonib natiti	"Animal may not be dangerous - but could be if provoked or approached by a stranger"
		"Roaming dogs can cause issues in rural areas such as harming livestock. Can be an issue in
		urban area, eg road hazards, scare people who find dogs intimidating. Poorly socialised and
		poorly trained dogs can attack other dogs and people"
	Of injury or harm	"Roaming animals are at risk of accident and injury themselves from cars and other animals."
	Or injury or italiff	
		"Because the pets themselves are put in danger and at risk of getting hurt or even stolen" "Can be pairwood by harrible people or DOC with their dam 1000"
i e	1	"Can be poisoned by horrible people or DOC with their dam 1080"

	Of hunger and mistreatment	"Roaming animals can become unpredictable behavior wise due to hunger and bad treatment by humans" "Roaming also doesn't provide the structure that a home does and it's easy for those animals to be mistreated and become malnourished. This can lead to aggression which is obviously and issue"
	Of uncontrolled breeding and spread of disease	"When they roam they spread their diseases and breed causing more stray animals that we don't need."
	To wildlife	"Roaming animals can destroy native and/or endangered animals - cats particularly are a danger to native birds." "Roaming/feral dogs and cats are a danger to indigenous wildlife. They are not usually desexed. They breed, thereby extenuating and increasing the problem, putting elements of our natural wildlife in danger of extermination"
	Of bad reputation	"Gives responsible pet owners bad name. Makes it harder for good pet owners to keep their own animals safe" "Bad reputation, impacts on the human population poor life for the animal - no one wins in this situation"
	Of making other uncomfortable/scar ed	"Mostly dogs, they make me nervous as you dont know what will happen" "Dogs can be scary on a good day, and there are too many unpredictable dogs out there." "It's scary sometimes when they [roaming dogs] follow me and my dog barking and running at us"
	Not being respectful	"There are people who are scared of animals and their space should be respected. Dogs and cats are usually not trained to leave NZ wildlife alone and therefore should be confined or taught to not kill/hunt NZ wildlife like birds, reptiles and insects. Domestic animals for human recreational benefits should not negatively impact our conservation efforts"
Nuisance	Harassing other pets and stock	"Roaming pet cans can be a pain if they visit other properties and harass the pets at that property" "Stray animals fight with pets, cause unwanted pregnancies and can be a pest in the community by attacking stock"
	Territorial behaviours	"Territorial behaviours like fighting with your own pets; spraying etc"
	Gardens and rubbish	"Cats are destructive especially in gardens and rubbish bags. Dogs can be a nuisance and have some people feeling nervous" "can upset neighbours digging up/pooing in their gardens" "They leave urine and feces around. They disturb rubbish"
	Roaming cats are a bigger problem	"Dogs not a big problem in NZ but there are lots of free-roaming cats especially living in companies without adequate care or responsible person in charge of their welfare." "Cats are a nightmare to wildlife and gardeners. We are tired of cat poo in our vegetable garden and have to cover all growing areas with netting" "Roaming cats a huge problem. Should be licensed like dogs" ""Cats cause devastation to wildlife and native birds, dogs aren't such a problem but may be vicious to people"
	Roaming dogs are a bigger problem	"I have no problem with roaming cats. However, I do with roaming dogs." "Dogs should never be roaming. Cats are fine to roam in the day but should be locked up at night so they aren't out killing things" "I think roaming dogs can scare the public and cause car accidents or death to the dog. Roaming cats I think aren't as big of a deal but I still worry for their safety when they're near a busy road. They also might kill native birds" "Roaming dogs are unpredictable as there is noone to keep them under control and can form roaming packs which is highly dangerous due to the natural pack instinct to hunt. Roaming pet cats that are well fed generally will not hunt birds and are not dangerous to the human population"

Roaming cats and
dogs are a problem

"Wandering cats are often a nuisance to other homes which can be problematic. Wandering dogs can be a safety issue, particularly if aggressive. Both become hazards on the road" "Cats are dangerous to native bird populations if allowed to roam unchecked. Roaming cats who aren't desexed lead to unwanted kittens and increase in strays. Roaming dogs pose traffic hazards, pose a hazard to kids and other animals and can get hurt. If in a situation where they are scared they can lash out etc"

"NZ is lucky to have amazing native flora which is decimated by roaming predators. Feral cats and dogs also really bother me as I live in the city, getting into rubbish and making noise throughout the night. Not to mention on more than one occasion these roaming animals have entered my home and attacked my own pets. Unacceptable"

Results: Objective 2

Evaluate the effectiveness of embedding preventative health checks for pets into an existing community-based human healthy lifestyle intervention programme such as Patu

The EIT-Patu Pets project started in July 2017 on the premise that people join Patu because they want to change their lifestyle for the better so they may, therefore, be more receptive to advice about positive changes they can make to their pet's lifestyle as well. This assumption was reflected by one Patu member who said,

As a Patu member, trying to be healthy and stay healthy, and healthy living, you try and do that for the rest of your family, including your pets, you know...whatever you think is good enough for yourself should surely be good enough for everybody else in your family so that includes the pets too (F1)

The Patu whānau embraced the free pet checks which coincided with their own weigh-ins, eg "I thought it was neat to get a weigh-in for yourself as well as sorting out your pet" (F4). Approximately one-third of those attending Patu member weigh-ins (approximately 40-50 members weigh in), also brought their pet dogs along to the pet health checks. No cats attended the pet checks. The feedback about the pet checks was positive eg "Very friendly, very educational too. Great information there" (M1) and "I just like the idea that you know, there are still decent people out there that still want to help our animals...I think that you guys did a good job. And the trainees." (F6). The education provided was valued and it was acknowledged that "...if people can't look after themselves, they obviously don't know how to feed an animal" (F5). Patu also provided animal-friendly sessions as an extension of the pet checks with one member noting "... that when I take her down [to the Patu gym session] I run. When we go for a run, she runs with me. And I'm a big guy and she's a big dog but she struggles, she struggles to keep up with me, eh... Yeah so, it's made me look at her and um look at my dog and I want her around for another couple more years, you know" (M1).

The themes from one-on-one interviews with seven Patu members (6 females, 1 male) about the EIT-Patu Pet Checks reached saturation and were grouped into three main categories which aligned with the interview questions: Motivation, Benefits, and Future. The main themes for each category are presented in Table 26.

The EIT-Patu Pet Checks were run voluntarily by the EIT Centre of Veterinary Nursing (CVN) staff and students. Three EIT CVN staff members and five students provided feedback about the EIT-Patu Pet Checks. When asked what motivated them to volunteer one staff member highlighted that "Caring for an animal is not one individual's responsibility, all whānau must be aware and contribute to the wellness of the animal" (Staff1) and another stated that it was "Great opportunity for whānau and animals involved" (Staff2).

Regardless if they are checked on a regular basis or not, a health check is extremely valuable, either to confirm you are caring for your animal the right way or raising some general concerns. Similar to how some places offer free blood pressure checks on humans, you may go because of interest even without feeling ill (Staff1)

Table 26. Thematic analysis of the transcripts of interviews provided by the Patu gym members about the EIT Patu Pet Checks.

Category	Themes	Representative Quotes		
Motivation	Convenience	"it was free, that was the main thing why I come." (F6) "because it was at Patu, my gym." (F2)		
	To check health	"cos I went through a cancer thingy and she's my only family that I've ever hadI took her in because she's got lumps in that, on the side of her stomach" (M1) "just to double check. Instead of paying \$60 to find out, yeah so that was it really, just to make sure."(F5) "to see if my dog was alright" (F8)		
	Reassurance	"Just to make sure, I think, I was doing a good job as a pet owner, I suppose." (F5)		
Benefits	Increased knowledge	"we've just learnt a lot about her anxieties and sort of much what triggers it off really" (F6) "Knowledge about my dog there's a few things that I need to get my butt into gear for her" (M1) "Knowledge about what, what was going on with him at the time." (F8)		
	Valued advice	"I was feeding her pies, I was killing her by feeding her pies and chocolate and I didn't know thatso no more pies, no more chocolate, no more biscuitsI've taken the advice, I've cut back on her food and she's, yeah she's starting to come right" (M1)		
	Health status confirmation	"it was nice to hear from someone else that she was in pretty good condition cos I thought she was but it was good to hear another opinion." (F4)		
	Changes in human behaviour	"We have slowed down on her drinking. She had a couple of drinks at the night which was the first big drink she's had since we probably visited you guys. So we have slowed down on that [And what drink specifically is that she would have]. Um, she really prefers the bourbon, anything sweet" (F6)		
Future	Continue with regular free pet checks	"I think it [Patu pet checks] should definitely keep running because there are a lot of people that are in the financial kind of area, just like myself. It would be good for students as wellYeah. For the EIT students, for their learning" (F7) "I do [think the EIT-Patu Pet Checks should keep going] cos there's a lot of animal lovers out there that can't actually afford to take their animals in to the vet And it's just sad that some people can't even take their animals to the vet cos it's so expensive. Even just for basic stuff" (F6) "Maybe just more regular or like more than just one or two" (F2)		
	Management of unsocial dogs	"I just remember there was a dog that wasn't social so maybe saying unsocial dogs can go at different times" (F5)		
	Community outreach	"I think we could advertise it more so that we could bring more people from like outside of Patu as well." (F7)		

All of the CVN students agreed it was to "get some experience" (Student1) and that "...it was a good opportunity" (Student2). The themes that emerged from face-to-face interviews of CVN staff and students about the EIT-Patu Pet Checks are presented in Table 2. In general, the Pet Checks were viewed as valuable for both Patu whānau and pets as well as CVN student and staff. The Patu whānau "who brought their pets engaged and were receptive to suggestions for improvement of their pet's health" (Staff2) and students found the experience of "thinking on your feet" (Student2) and developing the "the communication skills that are needed with talking to anyone" (Student3) in a safe environment extremely valuable, increasing their confidence for working in a clinical setting, "The veterinary nursing students benefitted from being involved in a real-life situation." (Staff2)

Table 27. Thematic analysis of the transcripts of interviews provided by the EIT Centre of Veterinary Nursing students and staff about the EIT Patu Pet Checks.

Category	Themes	Representative Quotes
Value to pets	Health issues identified	Vital for some of them – potentially life threatening/limiting issues discovered and discussed (obesity and cancer) (Staff3)
	Changes made	Some who returned had made great strides/attempts to improve diet, exercise their animal with definite results with weight loss (Staff2)
Value to whānau	Gained knowledge (especially improving diet, weight and	The clients were very willing to understand about their pets and to do a lot of the basic checks and try and fix afterwards (Student1)
	exercise)	Some pets returned having lost weight, been exercised more and benefitting from their whānau being more aware of how to look after their pet (Staff2)
	Changes tracked/improvement documented	A thing that was really good about this is at course we do health checks and stuff but we don't get to actually tell clients advice we just write it down on a piece of paper. Whereas this is actually giving us face to face experience with
	Helped students to practice their skills	clientsYeah, questions. And it wracks our brains. We can learn. We learn from this as well as they learn (Student1)
Value to students	Hands-on/Real life setting	"we're getting the experience to do it hands on rather than the vet doing it in a clinic when we're doing work experience" (Student4)
	Range of clients/dogs	" different attitudes and demeanours [of dogs] and the owners as well" (Student2)
	Confidence	"the actual hands on experience. Like the more you do something, the better you're going to become and working with different demeanour dogs, whereas at like course we got the very friendly dogs. Whereas there were some dogs that wouldn't let us, you know, touch them today (Student1)
		"I found it really good to again practice that interaction with people because you know I trust the knowledge that I have in my head but I sometimes get a bit of stage fright talking with people and so I found it good practice to interact with the public before we get into clinic (Student5)
	Whānau feedback	"it was good that owners are willing to listen and change or improve their animal's health which is good to see, rather than just sort of turning a blind eye to what we're saying" (Student3)
Value to staff	Practical teaching	Good to provide a learning opportunity for the students and a way for the public
	opportunity	to give something back to the students (Staff1).
		As a tutor at the time I saw a side to some students that I had not seen in the
	Opportunity to observe	classroom in simulation exercises. They opened up and used excellent
	students	communication and handling skills (Staff2).

At the close of each interview, the CVN students and staff were asked how the Pet Checks could be improved. It was acknowledged that the Pet Checks were only successful for dogs and that "cats were not successful" (S2). The students suggested making information pamphlets about local veterinary clinics, diet and exercise along with free product samples available, "...if we could have pamphlets of information to hand out would be really good. Mostly different feeds, different food types that we can give them, because that's what we're really focused on" (Student5). It was also noted that the open-plan set up in the gym needed to be improved so that there were separate consultation areas for unsocial, timid or anxious dogs, "So if we could have separate almost consultation areas where we can separate dogs...it would be good" (Student5). The CVN staff echoed the students' sentiments about giveaways and added some comments about recruitment and follow-up, for example, "More advertising to get numbers up, maybe different day or time? Some sort of animal-related giveaways: flea treatment, worming, maybe diet dog food trial for one dog? Monthly revisit weight checks for the overweight dogs with students to support/encourage owners" (Staff3).

Results: Objective 3

Trial a pet wellbeing assessment tool (The 'Pet Meke Meter') with $Patu^{TM}$ pet owners

The EIT-Patu Pet Checks were well attended by dogs but not cats. Due to this, a pet wellbeing assessment tool was developed and trialled for dogs only. Feedback was obtained from eight Pet Check attendees (4 female, 4 males) across three Pet Checks. The overall consensus about the design of the Meke Meter for dogs was that it was aesthetically pleasing and easy to understand and use. There was no negative feedback. The following quotes are representative of the feedback received with the Meke Meter for Dogs being described as looking "Beautiful" (F9) and "Awesome" (M1), and it's use and design described as "Easy" (F6, F9, F10, F11, M4, M5), "Pretty straight forward. Nice and easy. It was simple to use and understand" (M2), "Easy peasy. Love the colours. And I like that it's a diagram and not just questions in black and white." (F11), and "Very informing. Easy. Well set up" (M5).

The feedback from the whānau those attending the EIT-Patu Pet Checks about the usefulness of the Meke Meter for dogs was also very positive and two main themes emerged: Increased awareness and understanding, for example, "...was simple to use and understand" (M2), "Helps me understand him better" (F9), "Useful, an overall wellbeing look at my doggo" (F10), and Goal setting, for example, "I can see what behavioural, mental and physical areas I, the animal needs to work on" (Student1)

Two of the CVN students assisting with the EIT-Patu[™] Pet Checks were also asked what they thought about the design and usefulness of the Meke Meter for dogs and one commented "... I think it helps a lot to gain a lot of information from the owners about things that might happen at home that you wouldn't necessarily ask them (Student1)" while another said:

It was good for the owners, because sometimes they didn't understand what it meant and it was good for us to actually tell them what it meant, because it was probably something in their day to day life they don't realise happens or something that they just don't pay that much attention to or don't know what it means so they haven't paid any attention to it. So that was quite good for them to build some knowledge as well from it. (Student3)

Summary

Embedding an animal welfare intervention within a well-established intervention such as Patu that already fosters a culture of positive lifestyle changes (where most members are the action or maintenance phase of the behaviour change process) appears to have been a successful initiative for facilitating positive pet outcomes. This is captured in the following quote,

As a Patu member, trying to be healthy and stay healthy, and healthy living, you try and do that for the rest of your family, including your pets, you know. So we walk her often and you know, she's not very sociable with animals which is something that we've got to get better but yeah I mean, if you, whatever you think is good enough for yourself should surely be good enough for everybody else in your family so that includes the pets too.

The Dog Meke Meter was embraced by the Patu members who thought it was informative, easy to use and easy to understand. However, while this approach worked well for Patu whānau, it may not be transferable to other communities, especially if they lack a suitable intervention within which to embed the pet checks.

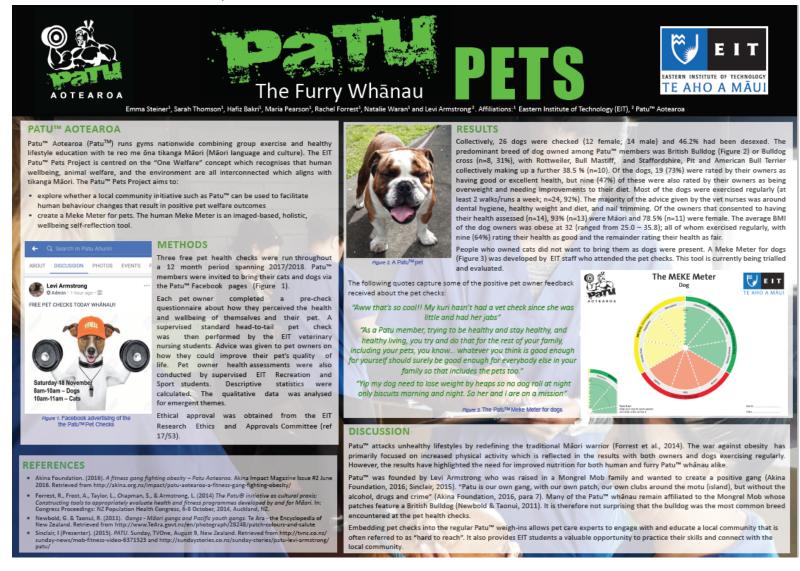
The national pet survey aimed to explore factors that influence attitudes towards companion animals (cats and dogs) and associated welfare issues. The information gathered identified revealed that local and national attitudes towards pet care and welfare were similar. Both locally and nationally the overarching theme that emerged was that pet dogs and cats were generally considered a loved and respected part of the family; a dependent. Dogs were viewed as a larger commitment and responsibility than cats. Dogs were typically viewed as an animal that should be well controlled while cats were not. Food and shelter were identified as essential for the proper care of all pets. With respect to dogs, exercise and socialisation were also acknowledged as important. Vaccinations were viewed as a priority for younger animals and worm and flea treatments were typically only used when required. A range of pet care practices were disclosed with household income, number of children in the household, rural upbringing, and whether or not the respondent lived in a town/city appearing to have the greatest influence on choices with gender, ethnicity, age-range and qualification level having a lesser influence. A variety of opinions were provided regarding pet care and roaming, stray and feral cats and dogs. Females compared to males, non-Maori compared to Māori, under 25 years of age compared to older age groups or currently town/city-dwelling compared to those who were not tended to have stronger opinions regarding pet care and roaming, stray and feral cats and dogs. Males compared to females, Māori compared to non-Māori, those households with children compared to those without or those with a rural upbringing compared to those who didn't, tended to have a higher percentage of neutral opinions.

This knowledge will facilitate the development and implementation of targeted and context-specific interventions to promote human behaviour chance and positive pet outcomes.

References

- Baltar, F., & Brunet, I. (2012). Social research 2.0: virtual snowball sampling method using Facebook. *Internet Research*, 22(1), 57-74.
- Colonius T, Earley R. (2013). One welfare: a call to develop a broader framework of thought and action. *Journal of the American Veterinary Medical Association*, 242(3), 309.
- Forrest R, Frost A, Taylor L, Chapman S, Armstrong L. (2014) The PATU initiative as cultural praxis: Constructing tools to appropriately evaluate health and fitness programmes developed by and for Māori. In: *Congress Proceedings: New Zealand Population Health Congress, 6-8 October, 2014, Auckland, New Zealand.* pp129-134
- Forrest, R., Steiner, E., Thomson, S., Bakri, H., Pearson, M., Armstrong, L., & Waran, N. (2018. September). Furry whānau wellbeing: Working with local communities for positive pet welfare outcomes. New Zealand Companion Animal Conference 2018, Auckland.
- Forrest R, Taylor L, Roberts J, Pearson M, Foxall D, Scott-Chapman S. (2016). PATU[™] Fighting fit, fighting fat! The Hinu Wero Approach. *AlterNative: An International Journal of Indigenous Peoples*, 12(3), 282-297
- NCAC (2016). *Companion animals in New Zealand 2016*. Retrieved from https://www.nzcac.org.nz/images/downloads/Companion%20Animals_in_New_Zealand_2016_Report web.pdf
- Savan B, Cohlmeyer E, Ledsham T. (2017). Integrated strategies to accelerate the adoption of cycling for transportation. *Transportation research part F: traffic psychology and behaviour, 46,* 236-249.
- Thomson, S., Pearson, M., Forrest, R., Waran, N., & Armstrong, L. (2018. September). *PatuTM Pets The Furry Whānau*. New Zealand Companion Animal Conference, Auckland.
- Thomas, D. R. (2006). A general inductive approach for analysing qualitative evaluation data. *American Journal of Evaluation*, *27*(2), 237-246

Appendix A: Patu Pets – The Furry Whānau







Patu^{IM} Actearoa (Patu) is a social enterprise business that provides group activities (exercise, education and social) interwoven with tikanga Māori and seeks to empower its participants (whānau) to make wise lifestyle choices. Since being founded in 2012 by Levi Armstrong (Ngāti Kahungunu; EIT Bachelor of Recreation and Sport graduate), Patu is now in 13 locations nationally and has crossed the Tasman into Brisbane.

"Tama tu tama ora, tama noho tama mate" An active person will remain healthy while a lazy one will become sick.

Patu is training up warriors to fight the war against obesity and the associated long-term illnesses. Research done in partnership with EIT has shown that Patu is perceived as a "positive gang" that successfully engages with Māori and in doing so Patu offers a sustainable approach to effecting positive community change (Forrest et al., 2014, 2016). #PATUUP



Patu promotes fat (not weight) loss. The Hinu Wero (Fat Challenge) was developed to encourage whānau to participate in a challenge extending over several weeks and to track their progress; the person losing the most hinu receiving a prize. EIT research showed that the Hinu Wero functioned as an effective way to engage Patu whānau and to empower them to make positive lifestyle changes. The whānau highlighted that the customary Māori practice of whanaungatanga (connectedness, support) along with rangatiratanga (self-responsibility) and kotahitanga (working together, teamwork) were of paramount importance in this initiative. Weighins also provided health professionals and EIT Bachelor of Sport and Exercise Science and Bachelor of Nursing students a unique opportunity to engage with the local Māori community to provide health education and screening #HinuChallenge Patu and EIT developed the Meke Meter, a holistic image-based self-reflection tool used to capture an individual's perception of their wellbeing, to help whäriau set healthy lifestyle goals. The Meke Meter embraces Te Whare Tapa Wha which adknowledges that the critical elements of Miconi health and wellbeing are tinana (body), hinengaro (mind), wairua (spirit) and whänau (family) (Durie, 1998). The Meke Meter is extensively used in Patu syrns and is currently being trialled in the education and healthcare settings. Make Everyday Kount! #MEK

2019
ITP RESEARCH SYMPOSIUM WHANAUNGATANGA community-centred research

The Patu Pets - Furry Whānau research recognises that human wellbeing, animal welfare, and the environment are all interconnected. This concept aligns well with tikanga Māori and the philosophies that guide Patu. Pet health checks for cats and dogs alongside the regular Patu member weigh-ins (usually associated with the Hinu Wero) have been implemented and a Meke Meter for Dogs has been developed. This initiative has allowed pet care experts to engage with, and educate, a local community that is often referred to as "hard to coach". It also provided EIT Veterinary Nursing students a valuable opportunity to practice their skills and connect with the local community.

Applications (1998), Ministers Millord beath development Auctions, Ordered University Press, 68-76.

Former, N., et al. (2014). The first inflintee as cultural presis Construction tools to appropriately resistant health and forms programmed development by and for Millord Int. Company Proceedings NV Application Auction Company. Continues, 2014. AUC. Highling St. Agridge Bell The Him. West States, Applications of the Continues of









ETT Research Team (past and present in alphabetical order): Bakri, H., Forrest, R., Foxall, D., Harrison, K., Lander, P., Pearson, M., Roberts, J., Stockdale-Frost, A., Taylor, L-A., Thorreon, S., Wawatai-Aldrich, N., Waran, N., & Williams, T.

Appendix C: Ethics approval



Our Ref: 17/53

28 July 2017

Rachel Forrest, Emma Steiner, Sarah Thomson School of Nursing School of Education and Social Sciences EIT

Dear Colleagues

Thank you for your application for your research project "PATU" pets – the furry whānau".

I am pleased to inform you that your research proposal has been approved by the Research Ethics and Approvals Committee on 28 July 2017. The Reviewers also commend the team for a well written and detailed application.

You are reminded that should the proposal change in any significant way, you must inform the Committee. Please quote the above reference number on all correspondence to the Committee. Please send all correspondence to REACapprovals@eit.ac.nz.

The Committee wishes you well for the project.

Yours sincerely

Jeanette Fifield

Secretary - Research Ethics & Approvals Committee

Appendix D: Patu – themes taken from interviews (in person and telephone) 2017-2018

Main themes

- o Family
- o Personal responsibility If you can't look after an animal, you shouldn't own them
- o Can be expensive to keep a pet
- o Try to rehome rather than put unwanted/stray animals down

Responsible dog ownership

To make sure that they're healthy and loved and that they have a good home. Um yeah, our dog was um, we saved her from a crappy life. When she was 12 weeks old she came to us, almost no food, she was just in a mess and I just feel like if you can't look after them like they deserve to be, then you shouldn't have them. But we loved her, yeah, she's like the baby, she is the baby (F1).

You care for your dog's wellbeing. Their shelter, food, exercise, and also um having them around people and other animals, yeah socialisation...Treat them like family (F2).

Yeah just, to actually want them, not just have them cos yeah, and to actually care for them properly (F3).

Um, feeding and homing your pet according to their needs. Um, making sure that you know, they're healthy and not neglected health-wise and you know, with love and that. I think if you don't have time for them, you know, it's probably better to find another home (F4).

Um, I suppose just feeding your animals, walking them as much as you can. Have a nice home, you know. They're not just stuck outside all day every day tied up doing nothing. They're part of your family and yeah and if they're sore or hurt or sick, you take them to the vet. Pretty much just like a family member you know, your kids. Treat everyone the same (F5).

Walking them, feeding them, making sure they've got housing, adequate housing. And offer socialising. And yeah. Keeping them enclosed in the property (F2).

Care of your animal you know, the same care. You'll care for your animal as much as you care for yourself, you know. As I said, I was brought up around animals, 98 dogs, so we every day as a child you know, we would go out and feed the dogs, look after them, maintain them. And horses and pigs, the goats and sheep, yeah...Yeah, I was brought up on a farm, my dad, he was a shepherd. He was the last of the shepherds, so yeah (M1).

Oh all of the above really. Safe environment, the family. You know you've got to love your animal. Just nurture it really and yeah, just love them and yeah, keep them safe from the human beings that are out there, yeah...Yes, we've got a kitten that's asleep with my dog right now between her legs. We brought this cat from Wairoa. It was a stray cat and we've got another one cat. We just named it [name]. We don't know where it came from but it's a full grown male cat and he's just made itself a home and we've got a third cat. That's just made itself a home when it was a kitten. Well actually all the three big cats have come here of their own free will when they were kittens. My dog actually found our black kitten before [name]. My dog actually caught him and had him in his mouth and she was missing for about twenty minutes in our back yard and we came out and she was playing with this black kitten and we've had him ever since. We've got three strays that are here and only one cat that belongs to us...I think we're quite known here in [place name]. We've actually had people drop puppies and cats off outside of our front yard...[When they do that, what do you think of that?]...My mum, my mum, she just like loses the plot. She usually can't like go to work on things like that. One dog we kept, my old dog [name], we put

her down about two years ago. Um, we found her in the gutter outside out house and we kept her. But the other dogs that we've had, um we've also kept. All of the animals that we've had they've either been ditched off here or we've rescued them (F6).

Um, making sure that the home that they live in is safe and secure. Um, that the dog's behaviour towards people and other animals is acceptable, especially in their environment. And the owner themselves, like they will take responsibility if anything happens. I've been in that situation before and I've taken full responsibility and both outcomes have become positive (F7).

THEMES ON RESPONSIBLE DOG OWNERSHIP

Pets should be loved and cared for Pets need shelter, food, exercise, socialisation, acceptable behaviour towards others Pets are part of the family

Don't own pets if you can't look after them. Personal responsibility

Responsible cat ownership

Cats are different to dogs. They do what they want. Um, we have ours microchipped but that's probably as responsible as we get. And they come and go as they please and they do as they please, yeah, pretty much our cats (F2).

I don't like cats. So, yeah I don't know (F3)...Cats don't like her either (F2).

Um well I've made my cat, my cat's a girl and she's been fixed so no babies. Um I think it's still the same. Make sure they've got food and water, she's not a cuddly cat though. She's annoying; she doesn't want to be sitting or your knee or patted (F5).

It's a lot harder to be a responsible cat owner...They seem to do what they want. You can't really keep a cat inside...Um, we used to try and make them stay inside at night but then they started going toilet so now they just, they can, we have a cat door so they can go in and out (F2).

No [does not own cats], but I'd like to but I'm not allowed to...My dog's not a cat friendly dog. [Do you think it's any different being a cat owner to a dog owner, in terms of the responsibilities?]...I'd say so because sometimes the cat will be off roaming. They could be as much mischief or something, as much as the dog does when he goes roaming. But I think cats in this weather won't go nowhere though (F7).

THEMES ON RESPONSIBLE CAT OWNERSHIP

Pets need shelter, food

Cats are different to dogs – come and go as they please; not friendly, roaming

o <u>Vaccination in companion animals:</u>

Um, yeah, I think it's important that they're vaccinated. I mean, I look at mine like a child, like just to try and protect them from whatever, as much as you can (F1).

Um, I do vaccinate them for the first, I think, two years. Yeah, and then I don't think I have after that... Um, no-one sent me out a letter. When we changed vets and we never got out sent a letter so yeah (F2).

Yeah, no, I'm pro for it. Because my dog is home, like she always had her vaccinations but because she's home a lot, now she's a bit older I don't take her up that much. I don't keep her up to date. But I think they're, like I'm for them (F4).

I don't do mine to be honest. So I'm not sure. I suppose it's just 50/50. It's just money for me. I just think it's an unnecessary thing for me. But I know they have to be vaccinated to go into kennels so I suppose if your dog's going into kennels that you'd do it but yeah, I don't know (F5).

Um, yeah I do it. Yep. That's about it. [And that's once a year is it?]. Yeah, but then they've only had them for like the first three years I think (F2).

Yeah it's very important for them eh? Very important, yeah. Helps prolong their life. You know, and fights all those bugs that they get, yeah (M1).

Vaccinating them, that's like getting their check-ups?...Yeah, I support that. Yep (F6).

I think it is good because I've seen a couple of family members' history about their pets having pavo. I'm very sceptical about parvo so I think it's very important for all pet owners to get their pets vaccinated (F7).

THEMES ON VACCINATION

Response: pro vaccination but does not appear to be a priority Is okay to not vaccinate regularly It is expensive

Desexing of dogs and cats:

I don't know. I don't know, like our, we hopefully want to get some babies out of ours but I feel like if you can't look after them, they should definitely be desexed, I mean, I don't know. The same as a human I suppose, you know. You shouldn't just be leaving them to just be having puppies and puppies all the time when you can't look after them (F1).

Um, yes, it should be done unless you want to breed from them (F2).

Especially cats, desex them, yeah (F3).

Yeah, I'm for that too (F4).

That's a big yes. If people cannot um stop them from getting pregnant, if they you know just get an animal, which a few of my friends have and they just keep letting it get pregnant all the time for no reason you know and they can't afford having kittens or give them away so it's just being cruel really. And I think you know, if you're not a breeder, they should be all desexed. And it changes the temperament of the dog too I think, in a male. It makes them more calmer (F5).

Yeah, I'm for it. I don't think it should be compulsory for dogs (F2).

Yeah, I'm all for it eh. I am, I really am. Um because there's a lot of, a lot of, you see a lot of animals you know that get neglected. You know, my dog, she was, I took her off some guys. They were dragging her around and she had this thick chain on. She was only a puppy, they were dragging her around and I just jumped out of my car and said, nah, nah, that's wrong and I just took her off the guys. Yeah (M1).

Um, I'm a big supporter of that, yep...Um, more so cos even though you get a lot of people that love animals, and when they have puppies or kittens, they just can't afford to have another eight, maybe nine more kittens

or puppies running round. And if they give them away, they're not sure if they're going to a good home or not, yeah. We get our animals done all the time. And that's just because, even though on a finance side, I suppose my mum could cater for another nine dogs but it's just unrealistic...Yes, it is [a lot extra]. And that's a lot of, our good time would probably go out the window, you know, to have to look after more animals. Um right now my dog and my kitten are asleep on the bed together so yeah. I wouldn't change anything when it comes to desexing animals. Our cats and our dogs all get done (F6).

Ah desexing. I think um, well my dog is desexed so I think that he kind of roams less. Um and there is a huge amount of pets that are not, that are being neglected because of over breeding and that and I think that yeah, desexing, I'm not offended about it and I think it should be suitable to owners that have pets. They should have desexed ones (F7).

THEMES ON DESEXING

Pro-desexing, unless you want to breed from your pet

Don't own pets if you can't look after them — cruel, personal responsibility, neglect from over breeding

o Tail docking, ear cropping and removal of dew claws in dogs

It's cruel. Yeah, no, I think they're just good to go unless it's hurting them medically some way or their health I think they should just be the way they're born. It's just cruel (F1).

Totally against it in any breed... I don't think, cos they use their tails to communicate with other dogs and people and you can't read them if they haven't got a tail. And their ears are just cosmetic to me and I don't think it's right (F2).

I reckon for bulldogs the tail's alright. I reckon it's all goods if their tails get chopped off for bulldogs only though. And Rottweilers... It just doesn't suit them [other dogs] pretty much (F3).

Um, I've never really taken much thought to it. Like when I grew up, we had a Rottweiler and his tail was docked. I didn't really think. I didn't have an opinion on it. I just thought he looked better like that anyway. But I could understand the benefits of not having the tail there too. Yeah but I don't actually have an opinion. I haven't really looked into it (F4).

Yeah well my brother's dog's got its tail off and the breeder did that so I thought that was a little bit. Cutting back their ears and taking their claws out, well that's a bit mean. Just for a look. Yeah, I don't know. But um, I think my brother's dog, because he's a hunting dog they didn't want to have the tail because it will yeah, get in the noise in the ears (*unsure of what was said here - MP*) (F5).

Against it...I just don't think, for dogs I think it's just um for looks and they can't show another dog how they feel. There's a lot of tail wagging for them (F2).

Yeah no, I'm against that eh. That's cruelty, that's cruelty to animals yeah. I know there's a few people that do do it, yeah. You know, I tell them too eh. Would you like me to crop your ears like that? You know, yeah, disgusting... They just, they get a fright eh cos I tell them what it is. You know and cos I know a few guys and that who were fighting their animals too and I would go over and take their dogs off them. Yeah, I'm not for that (M1).

Oh, I don't really know too much about it. Myself, I don't like it. I don't like the cropping of the ears, um. I understand some dogs have to get their tails chopped because they can't clean themselves properly or stuff like that but I'm not a big fan of it myself (F6).

Oh, um, when I was younger I thought that Rottweilers were actually short tailed anyway but as I grew up they were docking tails, people were docking tails themselves. Um, I'm not sure, I'm not very sure about the docking of ears though. Those who do dock ears and tails, you know, they're just looking at the dogs that we don't breed in New Zealand particularly and stuff. But if they were docked professionally, I wouldn't have any, anything against it but backyard ones, I just really hope some owners are taking good care of the wounds and stuff. But yeah (F7).

THEMES ON TAIL DOCKING, EAR CROPPING, DEW CLAW REMOVAL

Mixed responses – for/against

Crue

Cosmetic and hunting reasons acknowledged

o Use of behaviour modifying collars

I don't know anything about them. No, I've never heard of it (F1).

Um, I know about the one that zaps them when they bark. And also the one if they go off the property that gives them a zap. And I don't agree with them... Cos there are other ways to train a dog without using yeah, I don't know. I wouldn't like to be zapped. So I wouldn't want my dogs to be zapped either (F2).

Yeah, I reckon it's wrong and stupid because, like, they bark like if your guard dogs, they'll bark and they'll get zapped for barking at the burglars and that. So I think it's pretty dumb (F3).

Um, from what I know of them, I, sort of, are they like the choker chains?... I don't agree with the zapping ones but like my dad used to use a choker for a Rottweiler but yeah the zapping ones, I think that's quite cruel... Um he was a well-trained dog. He was I think originally trained by a policeman. Um but no, he was just a really well behaved dog so I didn't really have, you know it wasn't, it wasn't an issue (F4).

Oh my brother's just put one on his dog because he kept getting out the fence. I think it's the same thing and he's got a barrier for his house and it gives it a little, a bit of a shock I think if he gets too close or passes the barrier and I think the dog did it once though and never did it again so I think for dogs that are naughty, you know, that's a good thing but I think if, only if you need to (F5).

Um, I know about the zapping ones for the barking and I don't think it's right. And the choker one, I'm not, I'm against that though...I just think there are other ways that you can teach a dog (F2).

Nah, no that's cruelty eh. Cos I grew up on a farm, my dad had 98 dogs...Yeah. Every dog that he had he either would whistle or his voice controlled them. He taught me, my dad's taught me you don't have to be cruel to an animal. You know, it's how you use your voice and your body language, yeah. I've learnt that. (M1).

Are those electrocuting ones?...You know, give them a little shock?...I don't believe in that myself but um, we were going to invest in one for one of our dogs we had. It was just, we'd adopted another dog and it was just too vicious and to stop it from the boundaries we did think about it but mum wouldn't, wouldn't um, no at the end of it, we chose not to. But the thought was there but I don't like all that sort of stuff either yeah, but just to, I don't know, maybe just teach them to not go outside the boundaries or jump the fences. That was all we were thinking about. But we didn't bother. We just had to, I don't know, the dog just ended up jumping the fence anyway for a couple of months, and then it sort of just like phased out [kind of grew out of it or just got sick of it?]...Yeah, pretty much, yeah (F6).

Is that the electric ones?...Um, I haven't come across one personally or face to face so I'm not sure if they actually work. Um, is that, other than the pig hunting ones, I think those are trackers anyway so they will need those (F7).

THEMES ON BEHAVIOUR MODIFYING COLLARS

Mixed responses – for/against Reasons for using the collars are acknowledged There are alternatives to using the collars Cruel

o Do you think stray cats and dogs should be put down?

I don't know about put down. Re-homed I think? I don't think they should be put down, it's not their fault. I reckon that they should just be re-homed. I'm sure there's people out there who are responsible pet owners that would be looking for something. Nah, I don't like the put down thing. It's just sad (F1).

No, not at all. I think they should be either neutered and try to be re-homed (F2).

It kind of depends on, like cats, yeah, they can be. But like dogs, I reckon they could be trained into like, I don't know, guard dogs or something, or blind dogs or something for the blind and that. Yeah, I don't know. But dogs are more useful than cats so cats can get put down (F3).

If there was no, like, if there was a reasonable amount of time was given. But I think it's just something that you can't, you know, you can't make a home for 200 cats or you know. So it's just something that I guess maybe has to happen unfortunately (F4).

Um, I don't think they should be put down. I think they should be try and saved, if anyone can take them, it depends if they're feral or not I suppose. If anyone can make them friendly to be rehomed, depending on how old they are. I've had kittens that were feral before but they were like brand new old, like four or five weeks and they snapped out of it alright, so and I suppose if they've had all their checks and they're okay yeah, try and rehome them (F5).

No. I think they should be desexed (F2).

I think they should be rehomed. Given a chance you know. But um, there's something that, there's feral cats and that, ah, where we're from, you see a lot of them. You know and yeah, they're just beyond, what is it, they're just, they're wild (M1).

Um, yeah, yeah they need to be put down if they're just roam, you know, if they're homeless. We've got a couple of stray dogs down here. Mum just feeds them and this is why they keep coming back. We just put food outside of our front lawn or under our neighbour's big tree for the cats. Yeah but otherwise for their own wellbeing, I suppose the best place is to put them down (F6).

That's a hard one. Depending what their behaviour is because they could be used to like, like they might be from out in the wild and they come in to the city and they'll be like hunters and have to hunt for food and unsure what their behaviour will be like towards people and their pets (F7).

THEMES ON WHETHER STRAY CATS AND DOGS SHOULD BE PUT DOWN

Stray cats/dogs should be rehomed, desexed. Dogs should be retrained Should be put down if they roam, are homeless

* Should feral cats be put down?

No, I don't know (F1).

No. I just feel like they can be rehabilitated. Yeah no, not feral cats (F2).

Yeah, put them down, for sure (F3).

I think if they're not doing harm in a way if they are wild I don't see it as being too bad but then I'm not too sure on quite, you know, how that affects the environment and stuff (F4).

Stray cats and feral? No feral aren't tame. Stray cats just don't have a house. They're probably just going from whoever's feeding them, or whoever. They could be a lost pet, I don't know... If you can try and train them out of it, I don't know if it's, if they get to a certain age and they don't snap out of it, I'm not sure how it works. Or they can be feral as a kitten but once they get to whatever age and they don't get past it, I'm not really sure, yeah, I don't know (F5).

I don't think they should be put down. I think they should try to be desexed (F2).

Yeah, feral cats, yeah. I think they should be given a chance though. Just like everybody else, should be given a chance (M1).

Feral cats, I used to own two feral cats on the [name of an island]. And I didn't think too much of it. They were just normal cats I thought. Yeah I had a male and a female. I named them [name] and [name]. Yeah but they were different, they were very different but um an animal's an animal. A cat's a cat to me... Even though they were killing all the native birds over on the [name of island]. They've got a big, like a ritual over there that they kill all the cats. But I don't like it. Yeah... There was nothing we could do, it was just animal instinct. I'd rather a cat kill a bird than 1080 or things like that. I mean, there's worse things out there than a cat killing a bird cos that's their natural thing to do. They don't know any better, they're cats, I mean. It's the humans that are wiping out all our animals at the moment, yeah. I understand that you know, they're killing our native birds and all that but they're animals, it's survival. Yeah (F6).

Feral cats? I haven't come across any of those yet. Are they the ones that are out in the wild?...Oh wow. If they were, yeah. If they become uncontrollably...I would say so (F7).

THEMES ON WHETHER STRAY CATS AND DOGS SHOULD BE PUT DOWN

Feral cats should be retrained/rehabilitated/desexed. They could affect the environment – is animal instinct

* What is your opinion about sick cats and dogs being put down?

Depends, if they can't be helped, then maybe it's the most humane thing to do. You don't want them to live in pain. But not if they can be helped to be better. Yeah, I don't know. I don't think they should be put down unless they absolutely can't be helped (F1).

That's a hard one. I think that you should try all avenues before putting them down (F2).

Yeah, I reckon cos it will just be painful for them. Yeah, so I reckon if they get put down, it's out of their misery...Yeah, I'm a farmer (F3).

I feel like if you can fix them, then they should be. But I feel like it's the owner's responsibility to have enough money to, yeah, that should be the last option (F2).

Nah, they should be given a chance. Yeah but if they're beyond um, beyond it then yeah, you know do the humane thing, don't prolong (M1).

Sick cats and dogs. Yeah, I'm a big supporter of that. We'll put down our dogs and cats due to them being old and my mum's last dog she had, we had to put him down cos he had cancer in his balls and his balls just grew really big, yeah. Um, that's what we do if our animals are in pain, we will take them to the vet to get them put down (F6).

If there is no cure, or no way to cure the animals and they are in pain and they're unable to bring them back to being their active self, then I would say that would be the best way to do (F7).

THEMES ON WHETHER SICK CATS AND DOGS SHOULD BE PUT DOWN

Being put down may be the most humane option Try all options before putting them down Owner's responsibility to be able to care for a pet

* What do you think about unwanted pets being put down?

Unwanted, oh nah. The same. I don't know, it should be like an adoption thing, get them re-homed. No, I don't feel they should be put down...I don't know. I just feel like, especially with her and how we got her, I feel like that people that don't, if they can't look after them, shouldn't have them. And you know, I don't see the point of getting a pet if you're just going to leave them there to die. Like you know just, it makes me a little bit angry especially when I think back to what she used to look and the life she had before, it's just sad. Yeah, that's probably about it (F1).

No, I reckon they should go like SPCA to like try to get new homes, yeah... Yeah but definitely not put down cos it's not their fault (F3).

Yeah, I think that they should be put into pet shops instead of like the breeder dogs put into their shops yeah, and not the pound because they don't stay there for very long...Yeah, I think the laws around people who abuse animals and neglect them should be a lot stronger than they are... Yeah, too lenient [the laws are lenient] (F2).

I think if they could be rehomed, that would be better. I think that would be really sad. I do realise that there are a lot of people out there that get pets without considering just how, you know, how much work and commitment there is to it. Which is quite sad but, yeah (F4).

No. I knew a friend that happened to and that's not nice. You should try and rehome them...Yeah definitely. You don't put them down if you don't want them, that's mean...It's just so expensive. I always want more animals but my parents and that say you can have them but at the end of the day it's when they get hurt, it's going to cost you and you don't know if it's going to happen or not...So it's a struggle enough to feed them and flea them when it does come summer time, damn it, the more you have. But no, and I've got fish so I think I might have enough for now...I was thinking of getting another kitten. One that I can train from a kitten and be friendly you know...Yeah well my old boy passed away and then I had a kitten with him and they weren't getting on so I gave him away and then my cat passed away. And I rehomed my friend's kitten which was having the same drama. They were fighting a lot. And this cat's a half domestic/half ragdoll and she just does not want to sit on your knee or nothing. She's not cuddly at all. She just wants to be there and meow for food and that's about it...Oh

yeah, I think I'd just rather domestic actually, and then, I've had two cats before but now you can get cheap desexing things where before I never got that back in the day. I had to pay full price but forty bucks, that's cheap for. And now that I'm working, I can afford a bit more now. Yeah, so I've just upgraded [name]'s food from Tux to Pedigree. I want to go dearer but it's just too dear (F5).

No, no. They should try to be rehomed (F2).

Once again eh, they should be given a chance because there's are people out there who will take them. Well you see with the SPCA, because I try to go in, I try and save a few dogs. But they put the tally up, you know it's something like, I remember these two dogs I went in trying to get and far out, and far out it was something like \$290 per dog to get out. And I said to them I can't afford that, yeah... It is, it is. Because these dogs were old. You could see they were old eh you know, and they should be able to live out their lives and that, they're just like everybody else. Yeah, the SPCA eh, they put a lot of um, yeah, there's a lot of money involved (M1).

Um, if they can't get a good home, yeah. That's how we got Dory...And um, we've had two dogs that were stolen from here. They were actually rescued from gang members. Yeah, my father sort of just went to this house after Christmas a few years ago and just took these two puppies. One puppy had a stick up its butt, yeah and one puppy, he was actually a dog fighter from [place name] and he had buried him a hole in the ground and that was where he was living. My stepfather come home with both of them but um we let them out for a walk along [name] Road and we haven't seen them since. They were chipped and registered, yeah... Um, I like the idea [of microchipping]. I just think it's pretty stupid that when we get them microchipped, us as owners, we can't track them. You know, you can only track them if they get found. But we should be able to track them or monitor them 24/7 if they do get out. Cos I don't think animal owner, that get their animals chipped and registered intentionally allow their animals to get out. Sometimes they do just get out mistakenly or the gate's left open or something. (F6).

No. They should be wanted...Um. Obviously like if there's any vets or SPCA's that are overrun with them, I'll try and look for some second opinions. If there were, if it was suitable and they were vaccinated, they were well behaved around elderly people, you know, you can visit them. Or would they adopt a pet, elderly people and that. If it was up to that, you know if elderly people were capable of looking after those types of animals, then would they consider adopting they unwanted animal (F7).

THEMES ON WHETHER UNWANTED CATS AND DOGS SHOULD BE PUT DOWN

Unwanted cats/dogs should be rehomed, adopted, SPCA, pet shops Cruel, sad

If you can't look after an animal, don't have one – expense, commitment

- o PATUTM pet owner attention to their animal's nutrition and physical activity needs
- * What types of things make you pay more attention to your pet's needs?
- * Do you think going to Patu has made you think any differently about your pet's health?

As a Patu member. As a Patu member, trying to be healthy and stay healthy, and healthy living, you try and do that for the rest of your family, including your pets, you know. So we walk her often and you know, she's not very sociable with animals which is something that we've got to get better but yeah I mean, if you, whatever you think is good enough for yourself should surely be good enough for everybody else in your family so that includes the pets too (F1).

Um, as Patu members, I probably don't walk them as much as I used to cos I'm here exercising. But around socialisation, they meet a lot more people, yeah. They've come here a few times so they're socialising a lot more (F2).

I find that it's made me take the dog more cos I'm getting my fitness, take the dog with me to help me and the dog. Yeah. That's about it (F3).

No, just apart from the health check, like I thought that was a great bonus. But probably more cos I go to work out, yeah. But I thought it was neat to get a weigh in for yourself as well as sorting out your pet (F4).

Bree gives me the evil eye if she hasn't been out a few days so that's a classic we need to go out for a walk. Whereas usually I don't walk in the rain so if it rains for four days straight, she's staying inside. Um, my needs. Yeah I don't know. If she gets a bit smelly, give her a bath, probably needs one now. Flea her more often, I do in summer time and I try and keep up with my worming, two or three times a year. I probably don't do it as often as the rules are but I just give her a pill maybe every four months, three months, four months... I don't go to Patu anymore but um I know what you mean because if people can't look after themselves, they obviously don't know how to feed an animal so but I can't lie. Like Bree got overweight for a while and everyone was noticing and I thought whoa. And so you cut it back and then yeah, it all depends on if she gets out and does more walks or you know if she's had a full on day, you feed them a bit more. It's just like us so if you don't burn it off, it's not going to go anywhere. It's going to stay on you. Um, yeah so I think that's just you as a person if you know how to be kind of healthy eating or you know, you've got to work it out, balance it out between exercise and what goes in comes out sort of thing. Yeah so, it's all, but some people don't know, everyone's body's different so it could be harder for some people than for others. I don't know if it's the same for animals, it might be. Yeah. Those that can't run as fast, you know, can't burn it off as fast. Yeah, I think that's it really (F5).

Ah, probably not (F2).

Yeah it is, yeah it is. Because I, I've noticed too that when I take her down I run. When we go for a run, she runs with me. And I'm a big guy and she's a big dog but she struggles, she struggles to keep up with me, eh... Yeah so, it's made me look at her and um look at my dog and I want her around for another couple more years, you know. It just goes hand in hand when you've got dogs (M1).

Me personally, I don't go to Patu Up...Yes, it does. But I'm not a fit person myself you know. I'm eating and drinking all the bad stuff myself so I'm not a health fanatic or anything like that. I sort of just live day by day, yeah and just enjoy it really (F6).

THEMES ON PATU INFLUENCE

Consider healthy habits for individual and their pets – diet, regular exercise What applies to humans should also apply to animals

Any other comments?

But hopefully. But she looks healthy. We were out yesterday and some man say she looks shiny and good so hopefully that's good...Yeah it was an older man. He said she looks shiny so maybe whatever's working (F5).

Ah no, but I just like the idea that you know, there's still decent people out there that still want to help our animals...Yeah that's pretty much where we stand with all of this (F6).

Um, no, I think that's all. I'm just thinking about my dog at the moment. We just got him out of the pound last week...But he's okay. He's safe at home...He went roaming. He kept jumping the fence. But he's acting like he didn't go anywhere...Yeah, yeah, he's home now (F7).

Appendix E: Thematic analysis of response to Q12. When thinking about pet dogs and cats, what are your first few thoughts and/or feelings?

Theme	Subthemes	Representative quotes
Family	Are part of	"They are whānau"
		"They are a part of my family, not just a pet"
		"Treat them like a member of the family. Love them accordingly"
		"They are family, and are loved just as much as any human family member"
		"Furry family"
		"They are little furry humans"
		"As much a part of the family as humans"
		"They are your responsibility. Same as children"
		"Our pets are very important family members"
		"Love them ⁽²⁾ huge part of the family"
	Are necessary	"They are a need in my household!"
		"We need them"
		"Can't be without them"
		"They make a house a home"
		"Absolutely integral to have them in my life and care for and adore them"
		"Critical to a full life"
		"They're a major part of human culture"
		"Love them Essential for a family"
	Are like children	"Part of the family. They are vulnerable, need you to care for them. Amazing to share you life
		with them"
		"To take care of them. Love & nuture them like a child"
		"My dogs are my children"
		"Love, warmth, maternal feeling"
		"They are s big part of our family. My babies"
		"I would not be without my fur babes"
		"Mine are my children and their welfare is of the highest importance in where I live and how I
		manage my lifestyle"
		"LOVE!!! They are our little fur babies"
Love	Love	"Love in love"
		"Lovely to have around"
		"I love cats"
		"I love having pets"
		" the loves of my life"
	Unconditional love	"Unconditional love and spoilt"
		"Can't have a home without pets. They give unconditional love"
		"Unconditional love, cuddles and company"
		"Unconditional love from you pet. Great company. Calming"
		"Amazing, caring and forgiving creatures. Unlimited love"
	As a companion	"Companionship and loving"
		"Love, comfort, companionship"
		"Loved companions and family members"
		"Companion. Something to love and show affection"
	As family	"They should be treated as a part of your family not left outside by themselves. Love them as you
		would your own flesh and blood or partner"
		"They should be treated with respect and looked after like u would look after children - warm,
		safe and loved"
ļ		"They are like kids. I feel complete love"
	Deserved	"They deserve to be loved and adored no matter what"
		"They are members of the family, your children and should be treated with respect and love as
		they deserve. They are angelic souls"
Positive	Cute and adorable	"Cute and happy"
emotions		"Cute, love mine to bits"
		"Fluffy, adorable being with character and feelings, friend"
		"Furries! Adoration"
		"Love them cute fluffballs"
	1	"Adore them, wish I could adopt more"

	Affection and	"Warm and furry, great friends/companions"
	warmth	"Awwww"
	Warrier	"Warm feelings; they bring a lot into our lives"
		"Affection and companionship"
		"Cute, cuddly, pat, cuddles"
		"Companion, love, cute, affectionate"
	Comfort hannings	
	Comfort, happiness,	"they bring a lot of joy to life and are extremely smart"
	joy	"I love them both so much. I get happier when thinking about them"
		"Wanting to pat, play, cuddle. They tug on my heart strings"
		"I enjoy my animals"
		"Fondness, familiarity, comfort, friendship"
		"They bring a smile and happiness straight away"
		"Part of the family, loving, a joy"
		"They are comforting, adorable and give people joy"
		"Necessary for happy household"
		"Fluffy, good feelings, companionship, nice to touch"
	Fun and	"Cuddly, play full"
	entertaining	"Kitty cuddles and head boops"
		"Love then, cuddling them, wiggling bottoms, smooches"
		"Love them and their little quirky ways - such personalities!"
		"They make us laugh and put a smile on our faces no matter what's going on in our lives their
		always there for us."
		"Happy, playful, loving"
		"Fun, companions"
		"Love, companionship, endless entertainment"
		"make me laugh"
Companio	Good company	"I think about my own pets and feel very lucky to have such great companions"
nship		"They are part of my family and enjoy their company"
		"They keep you company, and are something to think about other than yourself/illnesses, and
		are a constant source of love"
		"Enthusiastic greetings, cuddles at bedtime, love"
		"They are good to have around. They add another dimension to the home and life in general"
		"That they are incredible companions and I couldn't imagine not having a pet"
		"Wonderful companions"
		"Excellent company. Faithful and loving companions"
	Never lonely/always	"They are company when you are alone"
	present	"Loving and caring, your never lonely with pets around"
		"Love them feel very lonely without a pet in the home, I wish I could afford to have lots"
		"Constant presence throughout life"
	Best friends	"Cute. Best friend"
		"Comfort, reliability and the best friends we could ever ask for"
		"Sentient beauties and best mates"
		"Best buds. Snuggles and cuddles"
		"My dog is my best friend. We go almost everywhere together"
	Protective	"My protector"
		"They are our family and companions. There to protect and be protected"
		"Love affection protection responsibility"
		"Companionship, love, humour, protectiveness"
		"Love, protectiveness, life enhancing"
	Loyal	"Loyal friends"
		"Wonderful faithful companions"
		"They are so special, loyal and they are my world"
		"Friendliness, loyal, smoochie"
		"Loyalty and love!"
		"Loving, loyal beings deserving of our care and respect"
		"Cute, friend, family, a loved one, loyal"
		"Love the closeness, cuddles, loyalty"

	Preferable to humans	"Family, prefer their company to humans a lot of the time" "Love them. Love having a companion as the bond can be greater than a human to human bond" "I love them more than humans" "An integral part of a family. Prefer animals to most humans!" "Furry members of the family, better than humans" "I love animals. They mean the world to me especially when there are not many decent humans in my life"
Beneficial	Improve owner wellbeing	"Cats and dogs are an integral part of my life, without which it would be emptier" "They bring me a sense of joy and calm" "Saves me from self harm thru her love & support. Calms me down when become overwhelmed and or stressed" "Amazing, a kiwi thing, multiple pets, good for the soul" "Companions, friends, responsibility, good for mental health" "How important they are to people's well being" "Great companions, good therapy" "Wouldn't want to be without them. Make life worth living" "Friends, faithful. Companionship. Sanity saving" "Always happy to see you. stress relievers. cuddles, wags and purrs" "They make great pets and have a positive effect on people" "They add much to life. Fortunate to live in a country where it is so easy to have them"
		"Believe they enhance your life" "They make me happy, even on the darkest of days" "My dog completes me" "Fluffy therapy!"
	Educators	"Love them, teach you alot of life lessons" "Love them! Pets are a wonderful way to learn about looking after other beings, and about unconditional love" "They r great to have with children because they teach care and how to love other animals. Great companions" "Integral part of family – great teachers for children!!" "Woohoo!! Love animals and they bring such joy into the lives of people and are great for
		exercise and helping children learn about kindness and responsibility" "Great companions, good to help teach children about life, sharing kindness etc" "Essential. Teach children compassion. Keep adults company" "Teaches you about birth and death" "Teach children care, empathy, responsibility" "Rewarding, teach empathy and responsibility"
	Beneficial for children	"Love them and all children should be brought up with pets" "Love them every child should have a pet" "Pets are amazing to have, especially as a child" "Awesome for kids. Loads of fun, love and cuddles" "Love them, think they are good for kids to grow up with" "They are awesome members of the family. I wouldn't want our kids growing up without having them around" "Great to have around, good for kids to have pets. Dogs are great company. They're part of the family" "Byte are a great have this a separable when you have kide"
Desirable	Wished for	"Pets are a must have thing especially when you have kids" "Wish I could have a pet dog or cat" "Wish I could get a dog" "Love to have a dog again" "I like them, I'd like a dog" "I love pets and am excited to have some of my own one day"
	Not able to	"I love animals, I would love to have pets (but can't as I rent)" "I adore cats and dogs and wish I could have a pet in my flat" "Would love to have a dog but renting makes it almost impossible" "Love them. Sad I can't have one where I live" "Would love to have space for a dog"
	But not settled/stable	"Love pets - wish I could have more but I hope to travel a lot in the future and pets are a long time commitment that I shouldn't be taking on more of atm" "Would love another cat and dog. We've had cats and 1 dog before, waiting til we get settle in our new home before we take on the responsibility though" "Love to have them now, but aren't in a financial, or rental, situation for it to be appropriate"

Pets are	A privilege	"Its not a right, its a privilege to have a pet"
not a right		"Animals are a privilege, and animals are nice to have at home"
G		"Pets make life better. They are a privilege and not a right"
		"Much loved family members. A privilege to have them"
		"They make such great companions and we are privileged to have them"
		"Part of the family, unconditional love, privileged to have them in my life"
		"Pets are a privilege and most people treat them as a right. Most people dont even know how to
	Diseased/Control	care for pets properly and I feel sorry for the animals."
	Blessed/Grateful	"They are wonderful companions we are very lucky to have"
		"I feel love and greatfullness for them"
		"LOVE!!!! How blessed we are to have such sweet animals to care for!"
	Valuable/Enriching	"Precious companion animals. They give joy, understanding and education to children, joy and
		companionship to everyone else. A vital part of being the best humans is if/when we love and
		look after creatures who depend on us"
		"I love them, animals are the best thing about this world. I just wish owners would appreciate
		that more"
		"They are enriching to our lives: cute and funny, need care, and are good company"
		"My Angel's"
		"I also believe they are undervalued and not appreciated."
Animal	A rosponsibility	
Animal	A responsibility	"We are responsible for them and must properly care for them"
welfare		"They are precious and living beings, we are responsible for their safety and welfare and they
		don't belong to us, they are only on loan to us and we need to ensure their needs are met,
		physical, medical and mental. We have no right to them if we don't do this and they are family,
		not objects."
		"They need love , attention, shelter, food and water"
		"To be treated with dignity and love. Need vaccinations, vet care, flea/worm treatment"
		"Members of the family. Should be cared for physically (vet care/ physical exercise/shelter/ good
		nutrition) and emotionally (human love and affection/ training) and be socialised appropriately"
		"Love them. They need love, attention and free space. Not contained or tied up all the time. They
		should want to be with you not stuck there to a rope or cage"
	Good animal	"They are beautiful creatures that deserve more rights"
	welfare is deserved	
	wellare is deserved	"Wish every pet was loved and cared for. They all deserve a great life"
		"I love them. They are each individuals, with personalities, feelings and deserve to be protected
		and properly looked after. Spaying and neutering is imperative. The shelter euthanasia rates are
		appalling"
	Not enough	"I love them. Breaks my heart there are too many unwanted cats and dogs and not enough good
	resources	homes"
		"That I like them, and hope they have good homes and owners"
		"They are not protected enough. I feel stressed and worried at how people are allowed to own a
		pet with out consequences for ensuring the welfare of the animal. Its a privilage not a right.
		People are uneducated. NZ so far behind in welfare"
	Mistreatment and	"To many of these animals are not being looked after adequately, and nothing changes for these
	neglect	animals"
		"What a rough deal so many get"
		"I am sad every day to see or hear of mistreated pets"
		"Great companion throughout many life stages, concerned about breeding farms and neglect of
		animals"
		"Not all have the life they deserve"
		"I think that so many in NZ are failed, their welfare needs and 5 freedoms aren't adequately met.
		And when they need help/uplifted the welfare officers dont do a good enough job."
		"Fondness for mine. Concern for those badly treated"
		"Wonderful animals, often badly treated"
	Big commitment	"Pets are part of our family's, and should do what we can to protect and care for animals, pets
		are forever not for Christmas"
		"Great company, makes a home. A long term responsibility"
		"Loved growing up with them They add to our lives A lifetime responsibility"
		"They should be treated like a part of the familyand if you can't afford the time and money to
		care for their needs, don't have a pet!"
		"I want to provide them a safe loving home and give them the best life I can"
		"Pets are for life they are not toys"

	Animal's perspective	"I feel we are only beginning to understand how much they know and feel. All animals not just cats and dogs" "Its very important to think like they would in order to understand how they think and function" "Its very important to think like they would in order to understand how they think and function"
Owner responsibi lity	Considerations – time, cost, capable of taking care of the animal	"People should be licensed to own them. They're part of the family" "Love the thought of having a pet, but have to think about where I live and whether people will be home enough" "Will their needs suit my lifestyle" "How many can I have? Followed by how many can I afford? Do I have the time to give them the attention that they need?" "I wish all pets had responsible caring owners" "Can I provide for them and do I have the time" "Can i afford another pet even though desperstely want to save all animals" "Are you committed. Do you have patience and time" "The happiness it would bring me and hopefully them too and what life would be like with them and then it would probably be all the costs involved and whether I can afford that or not"
	Deserve a safe home environment	"Love them to bits, deserve the best lives possible as pets" "Everyone should have a pet, and every pet deserves a safe home" "There is nothing that I want more than for animals to be placed in loving homes. Everyone should be encourged to adopted at least one animal family member and should be properly educated on how to properly take good care of said family member" "Fur babies they all deserve to have a safe, caring and loving home"
	Irresponsible owners	"Love for the animals and sadness for how some see them as disposable and take no responsibility" "There need to be tougher laws around animal abuse/neglect and more restrictions on breeding" "I love pets. Some people need to be more responsible with theirs" "I worry about how some animals are treated - chained dogs, neglect, abuse, fireworks etc. I get angry about the lack of repercussions to those that abuse animals in Nz" "Love them. Wish others took better care to train and keep their pets and the public safe" "Great to have. Some people would struggle to care for them properly because of low iq and /or mean tenancies" "I wish people were more responsible"
	Education	"I love them and wish that the general population was more educated about proper care and committing for the entire life of the animal, desexing and avoiding backyard breeders" "Love them but people need to be better educated on desexing and if they get a pet don't abandon it, if they can't look after it don't get one" "Education, desexing, licence all owners of animals, harsher penalties" "Education is needed by owners. Not everyone should have pets. Care and responsibility" "Do your research before getting a pet" "That there is not enough awareness on how to properly raise them."
	Rescue/rehoming	"Adopt from shelters/SPCA etc. Don't buy from breeders" "All pets I have owned have come my way either by being rehomed by someone or found (stray) with the exception of equine pets" "Love. We have always had dogs in our family, I grew up with dogs, we currently have two, one an SPCA rescue who we brought home at 9 weeks. I don't know what life would be like without dogs!?" "I wish there weren't so many unwanted dogs and cats" "We always had rescue dogs and loved them all." "Saving a life by giving them a home"
	Dependence on humans	"Unconditional love. You are their world and they are family" "They love you unconditionally. They need humans as much as humans need them" "Best friend, companion, reliant upon me for care" "Companions, friends, love, dependent on humans for everything so my job to look after them" "Dogs require a lot of human input, cats are harder to enforce rules on and largely self-maintain with care from humans" "They are part of the family and we give them everything required and more to meet their needs" "They cannot fend for themselves and depend on humans"

Costs	Money	"Love them, but they are a big responsibility and big expense if you care for them properly"
		"Cuddly beautiful company-can be expensive!!"
		"Love pets. People spend too much money on them now"
		"How many can I afford to feed and do I have time for? I wish rental properties were more pet
		friendly"
		"I love them but prepare for high expensevets etc"
		"Very cute and very expensive"
		"Family, equals, deserve the best. Money is not an argument"
	Time	"Expensive, time consuming"
		"Yes, best friends but only if you have time every day"
		"Loving lots of money lots of time required"
		"Friends, need time and attention"
	Need care/work	"Great companion animals. Give a lot of pleasure. Work needed to keep them and you happy"
		"Fun, awesome companions, soft and fluffy, quite needy and an ongoing time and emotional
		commitment"
		"They're comforting and usefull, but require work"
		"They were going to be hard work but the kids really wanted one"
		"It's great to have them around! They do need a lot of care though"
		"Extra work load!"
		"Hard work!!! Love pets but they are lots of effort"
	Messy/smelly	"So cute. Mess makers. Lap warmers. Cuddly fur balls"
	ivic33y/3iricity	"Companions, friends. Too much dirt inside!"
		"Companion. Cuddles. Gross shedding"
		"Love, smelly and cuddles"
		"gross smell of dogs"
		"but on the other hand can be frustrating when they have toileting issues around the home"
		"Fleas, fur on the furniture, mud through the house, dug up gardens, sleepless nights!"
	Worth it	"I love them. Yes, they are a handful but worth the lifelong companionship"
	Worthit	"Great companions, loyal, rewarding, annoying, loving, forgiving"
		"Worth it"
		"Farm dogs - thumbs up. Zero tolerance for town dog poo in all manner of public walkways,
		footpaths, and overnight even appearing in my own garden!"
Pets not fan	nilv	"Cats are cuddly, dogs are friendly when trained properly. Animals are not children"
Cats vs	Prefer cats	"Love cats, weary about dogs"
dogs	Freier cats	"Love cats, weary about dogs "Love cats, tolerate dogs as long as I can give them back"
uogs		"Love cats to pieces. Small dogs are ok, not really a dog person though"
		"Love cats. Some dogs okay but don't like big or noisy dogs"
	Prefer dogs	"Dogs are awesome, don't like cats"
	Freier dogs	"Dogs are my mates. Cats I can do without"
		"Dogs are loyal and love their owners cats are selfish and only love themselves"
	Dogs larger	"Dogs much bigger responsibility as generally more dependent than most cats"
	committment	Dogs much bigger responsibility as generally more dependent than most cats
	Cats easier to look	"Dogs are mans best friend. Cats are easy to look after"
	after	"Cats are much easier to look after, dogs are good to take travelling"
		"Dogs are loyal and love their owners cats are selfish and only love themselves"
	Dogs are working	"Dogs are for working on farms. Cats are part of every household"
	animals/cats are	"Dogs are working companions. Cats are house accessories"
	part of a household	
Threat to	Cats major problem	"I like cats, would love one but feel its probably not ok considering there is a large native bird
other		population around our property"
animals/w		"Not good for native wildlife"
ildlife		"Domestic Cats do not belong in New Zealand"
ııdlıte		"Domestic Cats do not belong in New Zealand"

Appendix F: Thematic analysis of response to Q13 "How do you feel your upbringing and family values have shaped your attitude towards your companion animals?"

Theme	Subtheme	Representative quotes
Always had	Growing up	"We always had a cat and dog growing up"
pets		"Growing up always had pets"
	Taught to respect animals	"My family always had animals growing up. My parents taught me to love and respect animals. As a child I loved getting to know every pet we ever had and learning each of their individual personalities" "We have always had pets growing up and have been taught to respect them and provide
	Provide life lessons	the best life for them" "Usually had pets as a child, taught responsibility and compassion, a positive experience mostly. Even taught about death through loss of pets" "We had pets, I learnt about commitment to the animals, daily needs, life and death"
	A 'normal' part of life	"I always had pets growing up so I feel like having pets is a kinds of a normal part of life for most people" "Always had pets. Normal part of family life"
	For an only child	"Our pets were always part of the family, I was an only child, dogs, birds, and bunnies were my siblings" "A family is complete with an animal. They also provide companionship which, as an only child, was important when I was growing up" "I was always allowed pets, I was an only child, pets were company for me"
	Lost without them	"Always had cats/dogs growing up. Very lonely without them" "I always had pets of all kinds as a child I hate not having pets now"
Valued family	Loved/Important	"They are an important and loved part of the family and make a house a home" "Our pets have always been loved family members.
member	Spoilt	"Our family has always had animals of all descriptions, and I have to say the non human family members tend to be spoilt" "I treat my animals very similar (spoilt beyond belief) to how my mum and dad treated their animals"
No pets growing up	Greater appreciation	"Wasn't allowed pets as a child so now I appreciate and love them way way more" "Didn't have pets growing up so always wanted to have one. Prob made me want to care for them even more"
	Desired	"Didn't have dogs growing up and couldn't wait to get one as an adult" "Didn't have pets as kids as allergy family always wanted them" "Did not have any pets as a child so desperately wanted one"
	Taught to respect animals	"Taught to respect life but not allowed animals during childhood" "I was raised to be kind to animals but didn't have pets growing up until a teenager"
	Weary of animals	"We didn't really have any pets that I got to bond with so I have always been wary of animals"
	Animals for food or income only	"Any animals were viewed as a source of food or income. They were well cared for but not pets." "Had a dad who went shooting, grandparents brought up during depression so animals were food"
Farm upbringing	Animal husbandry	"Very well. I grew up on a small farm so I have a good understanding of how to care for animals" "We had a lot of animals ie pet sheep, goats, chickens, geese, cats and dogs. None were for eating. Just the eggs. It taught me how to respect and care for animals"
	Animals as valued workers	"I have always had pets growing up and my family has instilled a love of animals as pets and as farm workers" "Growing up on a farm with animals gave me a fuller and happier life they showed me love, kindness and unconditional friendship and love. I had an understanding that they are not just pets but they also have a roll to play in the farming world. without them thing could not be done they where very important to the running of the farm" "We have many dogs, live on a farm, every animals plays a role in our family x" "Dogs were an essential part of farm life & valued pets"

	Burnose not note	"The dags were working dags not note All the animals had regular flee worm budgetid
	Purpose not pets	"The dogs were working dogs not pets. All the animals had regular flea, worm, hydatid shots etc and were treated with kindness. The working dogs stayed outside in their kennels and the cats were inside and outside pets."
		". I understood, from a young age, that the pet dog vs farm dog had very different roles and contributed to our family unit in different ways. I was given the responsibility of caring for them and was taught to respect them and be kind"
		"Growing up animals served a purpose, there were no pets as such"
	Cats versus dogs	"Cats are independent but also very loving and good companions. Dogs can be very loyal and hard workers. From a farming background"
		"Cats were always part of our life inside the house so are seen as a normal part of family life. Working dogs were on the farm and seen as a normal part of work life"
	Taught love and	"Living on a farm gave me a love and respect for animals"
	respect	"We grew up on farms and always had pets so it has always been our way of life to respect animals as we would humans"
	Livestock for food	"Important farm life tough to see animals breed for slaughter and food. Able to have pets so that taught us lots about animal care"
		"That you can have pet livestock but they are sometimes killed and eaten"
	Mistreatment	"Had pet cats. Always aware of animal cruelty and need to challenge it. Time spent on farming holidays made me aware of mistreatment of farm animals"
Hunting	Animal an important	"We are here to protect and love our pets. Brought up with a pig hunting father and being
background	food source	feed meat direct from animals in terms of survival (low income family where I was brought up in)"
	Compassion and empathy	"My upbringing has shown me to be compassionate about animals, even though I come from a hunting fishing family"
		"We always had pets growing up but they weren't really part of the family. My dad was a
		hunter and always brought home dead animals and I think this gave me more empathy towards all animals"
Animal focused	Obsession	"A good amount. Always had cats and we have been big animal lovers. When my dog came to us that was when they became my biggest passion. But yet I am definitely the
		most obsessed with animals" "We had a lot of cats when I was young and one dog. Always been obsessed with animals
		more so than the rest of my family" "Just call me a crazy cat lady"
		"Always been pet mad - way more than the rest of my family"
	Animal advocate	"I think my love for pets has changed my family attitude alot. They were less 'part of the family' before my passion for them changed their perspective"
		"Very. Learnt from upbringing with parent's lack of time and compassion to animals. Complete opposite now"
		"My father was a sheep farmer, old school, and pretty harsh. I've always tried not to be like he was towards my animals"
		"I rather feel it's the contrary: my concern for animal welfare made my parents change their view on pets and animals in general"
		"I was brought up to believe that dogs are dirty and only good for security. Cats are useless. I wanted to prove them otherwise. My family back home sees now that my pets
Upbringing	No pets as a child	are are also family members" "Not much affect as my parents never had pets or wanted them"
had no or	Lineite d'avec avec to	"Not much. My parents dislike pets"
little influence	Limited exposure to animals as a child	"Upbringing was light on pets" "Pets were not a priority we only had 1 cat and she wasn't very friendly"
imaciice	aliilliais as a cliliu	"Some but not a lot. We were taught to respect animals but we often didn't have a pet" "In no way. I was only allowed a caged Bird as a child"
	Developed own	"I did not grow up with companion animals as my parents did not like animals. My
	attitudes and values	parents did not raise me with any particular attitudes or values regarding animals. All the
	as an adult	attitudes or values I have now regarding companion animals I have developed from my years as a young adult onwards"
		"I had no pets growing up and wasn't very good around animals at all. As soon as I moved
		out of home I got a cat and have had cats ever since" "My mum was reluctant to have animals and gave me the same
		reluctance/understanding of pets until I was an adult"
		"A little, influence of other people and learning via boss and internet did more though"
		"My father taught me to treat dogs roughly and as commodities. I learned on my own
		through research and vet nurse training that this is the wrong way to think of dogs, as they are sentient beings"

Strong influence	"Strongly, that pets should be cared for and are a part of the family dynamic." "Strongly, I come from a family of animal lovers however I built on that general love by learning about how to properly care for animals"
	"My current attitudes towards pet strongly reflect my upbringing and my interactions since then"
Dysfunctional family	"Pets were v important growing up and cared for above average manner. Dysfunctional family relationships pushed me to rely heavily on non human friends" "Grew up with cats, love animals. In a dysfunctional family, pets offer solace to kids" "Probably was closer to animals as child as lived in abusive household"
Religious upbringing	"Catholic upbringing means we were taught about caring for animals and give them unconditional love"
	"Give me a sense of responsibility to look after our animals, according to my family's belief's as a Jehovah's Witness" "Growing up in an NZ european household, although my family was not religious, my views are shaped by christian values (e.g. dominion over animals and thus right to euthanasia)"
	"My grandparents were also very religious and tried to convince me that animals were put on earth for us to use and eat"
Values	"Strong family values. Life is precious and every life matters. Compassion" "We were always taught to be kind, caring, and respectful, not only to humans but to animals as well. However, just like humans, we were also taught that animals can be unpredictable. We were taught to always have our reservations and to never take the relationship with any being for granted" "My values and up bringing mean that animals in my care are treated respectively, humanely and as a member of the family"
Insight	"My dad used to say you can tell a lot about a person's nature the way they treat their animals" "Tend to feel that people without empathy for animals have issues"
Experiential learning	"I was brought up with animals and all members of my family are huge animal lovers. It has taught me compassion, responsibility and I don't know how people live without them" "I have grown up with pets of all shapes and sizes and I can not be without at least one. They have taught me so much growing up le empathy responsibility/reliability and trust"
Influenced career choice	"I've grown up wanting to be a vet/vet nurse" "Very well, I have a strong passion for animals. I've worked in equine clinics, with horses, now working on a dairy farm" "I was taught that animals lives matter and to respect them as the amazing creatures that they are and now I work in animal care" "It's one of the main reasons I got into animal care/zoology"
Passing it on future generations	"Absolutely have the love, responsibility, knowledge, intuition and respect my parents taught me and I passed to my son" "We always had a cat and dog when I grew up. Would love my son to have the same experience" "Always had animals wanted my kids to have the same" "I think I brought up my own kids to love animals better than when I was brought up!!!" "Had good values on animals being bought up and I pass it on to my children"
Traumatic experience	"I was attacked by 2 large dogs when I was 7 so to this day I'm still scared of big or large dogs"
Positive attitudes	"My parents were tough, but they instilled respect for others, especially animals" "My parents loved animals and my mum still has a cat. I was taught to be kind and gentle with them. This translates to how I feel now" "I think its shaped my values positively, as both my parents love animals and have had many pets growing up" "Pets were important to my parents to teach us all how to take care of another thing other than ourselves. Having a pet cat of my own from a young age taught I think helped me be more kind and understanding towards creatures" "My parents were from farming families. They taught me to respect animals and treat them with care"
_	Religious upbringing Values Insight Experiential learning Influenced career choice Passing it on future generations Traumatic experience

	Negative attitudes	"My parents were not nice animal owners which caused a lot of anxiety for me as I grew up"
		"My parents were not terribly fond of pets but I felt naturally attracted to them and they eventually gave in and allowed me to have a cat"
		"Cats were considered pests when I was growing up so I struggle to see past that and appreciate them as pets. I don't like cats based on my own experiences with them being mostly negative." "Have always had animals around, I feel incomplete without a pet. I think it made me
		want to do things differently from my parents though, they're a little more rough and ready, whereas I get my animals fixed and their problems seen to"
		"My upbringing included few animals and an indifference to pets by my parents - I've parented differently in most ways to them though, especially when it comes to pets"
Animal welfare	Respect	"I was brought up to treat animals with respect and not to neglect them" "respect for all people and animals. treat all with gentleness. no domination or abuse" "I was brought up to respect and look after all animals in a way you would expect to be treated yourself"
	Not possessions	"Animals are sentient beings, not possessions" "We always had pets. I was taught early on to respect their space and feelings and that we are lucky to be chosen to be their people"
	Dependence, empathy,	"Was taught that animals rely on us for everything. I feel I am more empathic because of this"
	responsibility	"We were taught animals completely reliant on us and were to be treated with love and respect"
		"Always had cats, and often a dog, which taught me empathy and responsibility. Was taught that animals feel pain and emotion, which my mind extrapolated to include all living things, not just cats and dogs. Always loved and been interested in animals, and have always associated animals with happiness."
	Training is important	"Absolutely. We have very highly trained dogs, and I struggle when I see untrained animals. Even my cats have some training" "We had a dog growing up which taught me the importance of training and looking after
	Mistreatment	animals" "I feel that if your brought up thinking animals have no feelings or emotions then
		mistreating them is easy. This is the biggest issue with society and farming"
Animal care	Humans versus animals	"I was taught to be kind to animals but humans are top of the pecking order" "Firm but fair, caring but not to the point of seeing them as human"
		"Grew up with animals all my life and have always been taught to treat them with respect and love. But they are still animals and we are alpha. But also to be careful around them as again they are animal"
		"Grew up with working dogs, and believe that dogs should be treated as dogs, not four legged children"
	Need clear boundaries	"Very much so I was always brought up around animals and taught to have respect for them and their space. I treat my animals in a firm but fair manner as I watched my parents do also as a child"
		"Cats and dogs are like family members although there are boundaries as they are still animals. For example dogs aren't allowed inside or on the beds. Pet food bowls are not washed in the kitchen sink or dishwasher" "They are part of the family but need to know their place - eg where they can be in the house"
	Treat with respect	"They are treated like a member of the family. Respect, kindness, love. All the things how you would like to be treated. They have feelings and are a living creature and should be treated as such"
	Treat as equals	"To be firm but fair on the animal, treat them in away that you would want to be treated" "I was brought up with cats, and looked after many stray cats and dogs in our area. This
		helped to see how animal are just like us, with personalities and feelings, from a very young age. It helped me respect them and view them as equals" "To treat them as our equal"
		"They deserve as much respect as a person. They're a loving living creature. They have rights and feelings" "We were raised to accept pets as part of the family and understand that our pets have
	Pets are a privilege	similar feelings and rights as any human" "I was brought up with dogs and cats and I was brought up to love, respect and care for our pets. They are a privilege to have and to make their life as happy and positive as possible as they are never with us long enough"

		"Its not a right to have a pet its a privilege, and if you can not meet their needs physically, nutritionally, emotionally and mental needs then do not have a pet. Always do right by them"
	Lifetime commitment/respons	"Pets are a lifetime commitment and they are part of the family and all members of the family should help to care for a pet"
	ibility	"They were valued, loved and cared for - it's an obligation for potentially a long time" "Responsibility, pets are for life"
		"I was taught once you adopt an animal it is your responsibility for the rest of their life.
		Even if they are a pain in the arse"
		"I learned if you have them you must be kind and responsible."
	Education	"Very positively but made me a big advocate for education of pet owners"
Benefits to	Make owner a better	"Always had pets. Makes me a better person"
humans	person	"Makes you more caring, and pets are calming"
		"Hugely important. It has been part of developing empathy. Animals mean so much to me"
		"Taught me to value life and that i am responsible for the life of my pet"
	Good for mental	"That animals are the best companion you can have and very good for emotional support
	health	while growing up"
		"They provide the unconditional love that people don't"
		"I had a cat growing up and she bought me great happiness"
		"Provided companionship in an otherwise negative environment"
	Good for physical	"Healthy due to early exposure to germs!"
	health	"Great, more understanding with animals. Gets the family active having to walk the dog/s"
	Good for teaching	"Had animals when a child and was taught I had jobs to do for their welfare and feeding"
	children	"It was an important family value to raise children with animals. We always had a role in
	Ciliuren	feeding our pets and looking after them"
		"Definitely teaches kids compassion and taking responsibility for someone other than just
		themself"
	Preferable to other	"I have more trust in animals than I do humans"
	humans	"I have more respect for animals than I do for humans"
		"I like animals more than people"
Cats versus	Fear of dogs	"I've always had cats so am very comfortable with that. I've never had a dog so have a
dogs		more hesitant attitude with dogs"
		"We were bought up with animals and neighbours had animalsbut we were always told
		to never approach dogs"
		"We were bought up with animals and neighbours had animalsbut we were always told
		to never approach dogs"
	Cats a threat to the	"We had cats when I was growing up but I have seen the damage that outdoor cats do to
	environment	native birds and I haven't had one for many years. I have had dogs for about 20 years"
		"My upbringing has shown me exactly how bad cats are to the native New Zealand wildlife and bush"
		Wildlife and bush